The American Journal of Clinical Hypnosis

The official Journal of the American Society of Clinical Hypnosis

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VOLUME II

1959-1960

Jl 1959- Ap 1960

THE PSYCHOLOGICALLY ORIENTED DENTIST

An Editorial

A great religious leader (1), who passed away recently, indicated his understanding of the psychodynamics involved in the dentist's interpersonal relationships when he made the following statement:

"Few people realize the dentist's mission. Dentistry requires an exact acquaintance with, an experience in the sciences and arts. It demands tact, intuition, and psychological finesse in order to acquire the art of persuasion and that moral authority necessary to anticipate and overcome those instinctive fears and hesitations on the part of the patient more distracting than actual pain."

The dentist's mission today is the same as when the above words were written. To accomplish this mission in a modern fashion, an awareness of the patient as a total human entity is necessary. No longer is it regarded as sufficient to consider the patient as an oral cavity, upon which is superimposed a dental chart indicating so many units of dental procedure to be accomplished. We fall short of doing our utmost when we fail to consider our patient as an integrated physiological and psychological unit. It is necessary to be aware of the part that emotional factors play in the cause and treatment of disease. The ability to understand and handle a patient's emotional needs extends the scope and usefulness of the dentist and supplements his diagnostic acumen and therapeutic skills.

Many patients have never learned to feel at ease or to make a satisfactory adjustment to the dental situation. Psychologically oriented dentists find hypnosis to be a method of aiding those nervous, fearful, and apprehensive patients who make dentistry difficult both for themselves and their doctors. This help is made possible by the reduction of physical and mental tensions, enabled by even the lightest stages of hypnosis.

Utilization of the hypnotic approach in the dental situation becomes difficult for those who mistakenly see in the technique "the uttermost possible form of controlling a human being." (2) It has never been demonstrated scientifically that the subject in hypnosis is an automaton or is under the actual control of the operator. Many hypnotist-centered (authoritarian) operators are frequently chagrined to find subjects unwilling to become hypnotized at the first instance; unwilling to develop the hypnotic state at some future session, even after hypnosis has once been induced; unwilling to remain in hypnosis when personal needs and motivations are in conflict with those of the hypnotist; or merely unwilling to carry out simple suggestions, even in the deepest trance states. The probable reason for this is that nothing ever happens either in the induction or utilization of hypnosis because of some command or power of the hypnotist. The only things that do occur are those that the subject *makes* happen or *allows* to happen.

Recent experimentation (3) tends to support the statement (4) that a common denominator underlying most resistances to hypnosis is an unwillingness on the part of the subject to submit to the hypnotist's direction.

Many hypnotist-centered operators have reported that, even when hypnosis has been induced and a therapeutic objective has been gained, resentments are frequently expressed by the subject at a later time. These resentments may be indicated by a refusal to use hypnosis at a subsequent time or by discontinuing the services of the hypnotist.

The difficulties and complications mentioned above seem to disappear for the patient-centered operator. In this approach, the operator disclaims any powers as a hypnotist. He undertakes only to show his patient what it is that he has to do to achieve or to accomplish hypnosis. Such an approach, when made with expectancy, conviction and sincerity eliminates those resistances which stem from the anxieties aroused when the subject regards the situation as a dominance-submission relationship to be feared or distrusted.

The skill of the dentist in aiding the production of hypnotic states will then lie not in any powers as a hypnotist but in his ability to work with his patient in achieving a common goal and in aiding the patient to utilize effectively his own behavioral responses. The dentist who operates in this fashion must react to his patient as a person. The relationships become those of one human being dealing with another, rather than those of one who deals with mechanical procedures and fails to see the person involved. A better understanding of others enables one to like others more. This is a prerequisite for a better understanding and a greater liking of one's self.

It is recommended, therefore, that dentists do not become hypnotists, but rather, that they acquire a psychological orientation which includes a knowledge of and competence in the technique of hypnosis. We firmly believe that there is a great difference between a psychologically oriented dentist who uses hypnosis and a dentist who is also a hypnotist.

I. I. S.

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FURTHER CLINICAL TECHNIQUES OF HYPNOSIS: UTILIZATION TECHNIQUES

by Milton H. Erickson, M.D.[1]

In the more common techniques of hypnotic trance induction, the procedure is based primarily upon altering the subject's activity of the moment and instructing him variously in a different form of behavior. Thus, the subject may be told to sit quietly and comfortably in a chair, to fixate his gaze and then to relax his body progressively and to develop a trance state as he does this. Or he may be asked to close his eyes and to develop imagery of various types until a trance state develops. Similarly, in the hand levitation technique, a participatory attitude, an interest in the experiential aspects of the situation, and the development of ideomotor activity may all be suggested as a measure of inducing a trance.

Such techniques as these require a willing acceptance of and cooperation with an externally suggested or imposed form of behavior, which may be either active or passive. Resistance to or rejection of this imposed behavior may require resort by the operator to another technique more readily accepted or more pleasing to the subject. Or it may be met by a fatiguing of the subject into an acquiescence by the operator's persistence, and sometimes it requires a postponement of the effort at hypnosis. Ordinarily, one or another of these measures meets adequately the particular resistance problem presented by the individual patient, but there is always a risk of some degree that a change of technique, undue prolongation of effort, or postponement of the hypnosis will have an adverse effect upon the patient's acceptance of hypnosis as a personally possible experiential learning.

However, there is another type of patient, actually readily amenable to hypnosis but unresponsive and resistant to the usual induction techniques. While encountered more frequently in psychotherapeutic practice, they are met not infrequently in general medical and dental practice and are judged too frequently to be unsuitable patients for the use of hypnosis. These patients are those who are unwilling to accept any suggested behavior until their own resistant or contradictory or opposing behavior has first been met by the operator. By reason of their physical condition, state of tension or anxiety, intense interest, concern or absorption in their own behavior, they are unable to give either actively or passively the requisite cooperation to permit an effective alteration of their behavior. For these patients, what may be termed *Techniques of Utilization* frequently serve to meet most adequately their special needs. But more than this, these same techniques are readily applicable to the usual patient and they frequently serve to facilitate in both rapidity and ease the process of trance induction in the average patient.

These techniques are, in essence, no more than a simple reversal of the usual procedure of inducing hypnosis. Ordinarily, trance induction is based upon securing from the patient some form of initial acceptance and cooperation with the operator. In Techniques of Utilization the usual procedure is reversed to an initial acceptance of the patient's presenting behavior by the operator and a ready cooperation with it by the operator, however seem-

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ingly adverse that presenting behavior may appear to be in the clinical situation.

To clarify and illustrate these various Techniques of Utilization, the following clinical examples will be cited:

Example 1

The patient entered the office in a most energetic fashion, declared at once that he did not know if he were hypnotizable but that he would be willing to go into a trance if it were at all possible, provided that the writer were willing to approach the entire matter in an intellectual fashion rather than in a mystical, ritualistic manner. He went on to declare that he needed psychotherapy for a variety of reasons, that he had tried various schools of psychotherapy extensively without benefit, that hypnosis had been attempted on various occasions and had failed miserably because of mysticism and a lack of appreciation for the "intellectual" approach.

Inquiry elicited that he felt that an "intelligent" approach signified not a suggestion of ideas to him but a questioning of him concerning his own thinking and feeling in relationship to reality. For example, the writer, he declared, should recognize that he was sitting in a chair, that the chair was in front of a desk, and that these constituted absolute facts of reality and, as such, could not be overlooked, forgotten, denied, or ignored. In further illustration he pointed out that he was obviously tense and anxious and concerned about the tension tremors of his hands, which were resting on the arms of the chair, and that he was also highly distractible, noticing everything about him.

This last comment was seized upon immediately as the basis for the initial cooperation with him, and he was told, "Please proceed with an account of your ideas and understandings, permitting me only enough interruptions *to insure that I understand fully* and *that I follow along with you.* For example, you mentioned the chair but obviously you have seen my desk and have been distracted by the objects on it. Please explain fully."

He responded verbosely with a wealth of more or less connected comments about everything in sight, but, at every slight pause, the writer interjected a word or a phrase to direct his attention anew. These interruptions, made with increasing frequency, were of the following order: And that paperweight; the filing cabinet; your foot on the rug; the ceiling light; the draperies; your right hand on the arm of the chair; the pictures on the wall; the changing focus of your eyes as you glance about; the interest of the book titles; the tension in your shoulders; the feeling of the chair; the disturbing noises; disturbing thoughts; weight of hands; weight of feet, weight of problems, weight of desk; the stationery stand; the records of many patients; the phenomena of life, of illness, of emotion, of physical and mental behavior; the restfulness of relaxation; the need to attend to one's needs; the need to attend to one's tension while looking at the desk or the paperweight or the filing cabinet; the comfort of withdrawal from the environment; fatigue and its development; the unchanging character of the desk; the monotony of the filing cabinet; the need to take a rest; the comfort of closing one's eyes; the relaxing sensation of a deep breath; the delight of learning passively; the capacity for intellectual learning by the unconscious; and various other similar brief interjections were offered, slowly at first and then with increasing frequency.

These interjections initially were merely supplementary to the patient's own train of thought and utterances and the effect, at first, was simply to stimulate him to further effort. As this response was made, it became possible to utilize his acceptance of stimulation of his behavior by a procedure of pausing and hesitating in the completion of an interjection. This served to effect in him an *expectant dependency* upon the writer for further and more complete stimulation.

As this procedure was continued, gradually and unnoticeably to the patient, his attention was progressively directed to inner subjective experiential matters, whereupon it became possible to use almost directly a simple, progressive relaxation technique of trance induction and to secure a light medium trance.

Throughout therapy for this patient, further trance inductions were similar, although the procedure became progressively abbreviated.

Example 2

Comparable to the first patient was the woman who presented a somewhat similar problem. She stated that in all previous attempts she had been defeated in her efforts to secure therapy by a compulsive attentiveness to the minutiae of the immediate environment, and that she invariably found difficulty in completing her history

and in attending to what was said to her because of the overpowering nature of her need to attend to and to comment upon what she saw about her. (Even this small amount of history was interrupted by her inquiries about or simple mention of various objects in the office.) She explained further that a family friend, a psychiatrist who knew her well, had suggested that hypnosis might enable her to cooperate in therapy, and he had referred her to the writer.

Since she herself had impressed the writer as a possible candidate for hypnotherapy and since little progress was being made in the interview, hypnosis was attempted by utilizing her own behavior as the technique most suited to be employed. This was done in the following fashion:

As she inquired about a paperweight on the desk, reply was quickly made, "It is on the corner of the desk just behind the clock." As she flicked her gaze to the clock and asked urgently, "What time is it?", she was answered with, "The minute hand indicates the same numeral as does the desk calendar."

There followed then a whole series of comments and inquiries by her without pause for any replies, and with a rapid shifting from one object or subject to another. Her entire behavior was similar to that of an unhappy small child, warding off questioning by the measure of forcing the direction of the interrogation into irrelevant, distracting avenues.

Once launched into her verbal flow, it was not possible to interrupt her verbally except with great difficulty, and then fruitlessly. However, the measure of extending a paper knife compelled her to make mention of it. As she responded and then continued in her monologue, the writer polished his glasses, again forcing her to make a comment in accord with her pattern of behavior. Next she was interrupted by a placing of the glasses in their case, then the desk blotter was shifted, a glance was directed at the book case, and the schedule book opened and closed. Each of these acts was fitted by her into her compulsive stream of utterances. At first these various acts were performed by the writer at intervals and rather quickly, but as she developed an attitude of expectation for the writer's silent interruptions, his movements were deliberately slowed and made with slight hesitant pauses, which compelled her to slow down her own behavior and to await the writer's utilization of her conduct. Then the writer added to his silent indication of objects an identifying word or phrase of comment.

As this procedure was continued, it had a progressively profound inhibitory effect upon her, with the result that she began to depend more and more exclusively upon the writer to indicate either verbally or by gesture the next object she was to comment upon or to name. After about forty minutes of this, it became possible to instruct her to close her eyes and to name from memory everything that she had seen and to do this until she developed a deep hypnotic sleep. As she obeyed, she was prompted, "And now, 'paper-weight,' and deeper asleep; and now 'clock,' go even deeper into the trance," etc., until in another ten minutes a profound somnambulistic trance state was secured.

Thereafter, through this measure of utilizing as an induction technique her own pattern of resistant behavior, ready cooperation in therapy marked the clinical course of this previously "impossible" patient. Each therapeutic session at the beginning began with her compulsive behavior which was immediately utilized as a technique of another induction of a therapeutic trance. Later a simple gesture indicating the chair in which she was to sit sufficed to elicit a trance state.

Example 3

Essentially the same procedure was employed with a male patient in his early thirties who entered the office and began pacing the floor. He explained repetitiously that he could not endure sitting quietly or lying on a couch and relating his problems and that he had repeatedly been discharged by various psychiatrists because they "accused" him of lack of cooperation. He asked that hypnotherapy be employed, if possible, since his anxieties were almost unendurable and always increased in intensity in a psychiatrist's office and made it necessary for him to pace the floor constantly.

There was still further repetitious explanation of his need to pace the floor which was finally successfully interrupted by the question, "Are you willing to cooperate with me *by continuing to pace the floor, even as you are doing now?*" His reply was a startled, "Willing? Good God, man! I've got to do it if I stay in the office." Thereupon, he was asked to permit the writer to participate in his pacing by the measure of directing it in part. To this he agreed rather bewilderedly.

Thereupon he was asked to pace back and forth, to turn to the right, to the left,

to walk away from the chair, and to walk toward it. At first these instructions were given in a tempo matching his step. Gradually the tempo of the instructions was slowed and the wording changed to, "Now turn to the right away from the chair in which you can sit; turn left toward the chair in which you can sit; walk away from the chair in which you can sit; walk toward the chair in which you can sit," etc. By this wording a foundation was laid for more cooperative behavior.

The tempo was slowed still more and the instructions again varied to include the phrase, "the chair which you will soon approach as if to seat yourself comfortably," and this in turn was altered to, "the chair in which you will shortly find yourself sitting comfortably." His pacing became progressively slower and more and more dependent upon the writer's verbal instructions until direct suggestions could be given that he seat himself in the chair and go deeper and deeper into a profound trance as he related his history.

Approximately forty-five minutes were spent in this manner inducing a medium trance that so lessened the patient's tension and anxiety that he could cooperate readily with therapy thereafter.

The value of this type of Utilization Technique probably lies in its effective demonstration to the patient that he is completely acceptable and that the therapist can deal effectively with him regardless of his behavior. *It meets both the patient's presenting needs and it employs as the significant part of the induction procedure the very behavior that dominates the patient.*

Another type of Utilization Technique is the employment of the patient's inner, as opposed to outer, behavior, that is, using his thoughts and understandings as the basis for the actual induction procedure. This technique has been employed experimentally and also more than once in therapeutic situations where the type of the patient's resistances made it advisable. Although it has been effectively used on naive subjects, ordinarily good intelligence and some degree of sophistication, as well as earnestness of purpose, are required.

The procedure is relatively simple. The subject, whether experimental or therapeutic, is either asked or allowed to give expression freely to his thoughts, understandings, and opinions. As he does this, he is encouraged to speculate aloud more and more extensively upon what could be the possible course of his thinking and feeling if he were to develop a trance state. As the patient does this, or even if he merely protests about the impossibility of such speculation, his utterances are repeated after him in their essence as if the operator were either earnestly seeking further understanding or were confirming his statements. Thus, further comment by the subject is elicited and repeated in turn by the operator. In the more sophisticated subject, there tends to be greater spontaneity, but occasionally the naive, even uneducated, subject may prove to be remarkably responsive.

Example 4

An illustration of this technique is the following account, considerably abbreviated because of the extensive repetition required. With this technique, the patient's utterances may vary greatly from one instance to another, but the following example is given in sufficient detail to illustrate the method.

This patient, in seeking psychiatric help, declared, "I've made no progress at all in three years of psychoanalysis, and the year I spent in hypnotherapy was a total loss. I didn't even go into a trance. But I tried hard enough. I just got nowhere. But I've been referred to you and I don't see much sense in it. Probably another failure. I just can't conceive of me going into a trance. I don't even know what a trance is." These remarks, together with the information received previously from the referring physician, suggested the possibility of employing her own verbalization as the induction procedure.

In the following account, the writer's utterances are in italics:

You really can't conceive of what a trance is—no, I can't, what is it?—*yes, what is it?*—a psychological state, I suppose—*A psychological state you suppose, what else?*—I don't know—*you really don't know*—no, I don't—*you don't, you wonder, you think*

—think what—*yes, what do you think, feel, sense?*—(pause)—I don't know—*but you can wonder*—do you go to sleep?—*no, tired, relaxed, sleepy*—really tired—*so very tired and relaxed, what else?*—I'm puzzled—*puzzles you, you wonder, you think, you feel, what do you feel?*—my eyes—*yes, your eyes, how?*—they seem blurred—*blurred, closing*—(pause)—they are closing—*closing, breathing deeper*—(pause)—*tired and relaxed, what else?*—(pause)—*sleep, tired, relaxed, sleep, breathing deeper*—(pause)—*what else*—I feel funny—*funny, so comfortable, really learning*—(pause)—learning, *yes, learning more and more*—(pause)—*eyes closed, breathing deeply, relaxed, comfortable, so very comfortable, what else?*—(pause)—I don't know—*you really don't know, but really learning to go deeper and deeper*—(pause)—too tired to talk, just sleep—(pause)—*maybe a word or two*—I don't know (spoken laboriously)—*breathing deeper and you really don't know, just going deeper, sleeping soundly, more and more soundly, not caring, just learning, continuing ever deeper and deeper and learning more and more with your unconscious mind.*

From this point on it was possible to deal with her simply and directly without any special elaborations of suggestions, and subsequently trances were secured through the use of post-hypnotic suggestions.

The above is simply a summary of the illustrative utterances and the method of utilization. In general there is much more repetition, usually only of certain ideas, and these vary from patient to patient. Sometimes this technique proves to be decidedly rapid. Frequently with anxious, fearful patients, it serves to comfort them with a conviction that they are secure, that nothing is being done to them or being imposed upon them, and they feel that they can comfortably be aware of every step of the procedure. Consequently, they are able to give full cooperation, which would be difficult to secure if they were to feel that a pattern of behavior was being forcibly imposed upon them.

The general principle of the above technique can be readily adapted into a separate Utilization Technique, somewhat parallel in character, but a definitely different, effective reinduction technique for those patients previously good hypnotic subjects but who, for one reason or another, have become highly resistant to hypnosis despite outward cooperativeness.

The procedure is simply to get the subject to recall from the beginning in a reasonably orderly, detailed manner the events of a previous successful hypnotic trance. As the subject does this, repetitions of his statements are offered and helpful questions are asked. As he becomes absorbed in this task, the subject revivifies the previous trance state, usually regressing subjectively to that previous situation and developing a special rapport with the operator. The following example, in summary form, illustrates this utilization technique:

EXAMPLE 5

A volunteer subject at a lecture before a university group declared, "I was hypnotized once several years ago. It was a light trance, not very satisfactory, and while I would like to cooperate with you, I'm quite certain that I can't be hypnotized." "Do you recall the physical setting of that trance?" "Oh yes, it was in the psychology laboratory of the university I was then attending." "Could you, as you sit here, recall and describe to me the physical setting of that trance situation?"

He agreeably proceeded to describe in detail the laboratory room in which he had been hypnotized lightly, including a description of the chair in which he sat, and a description of the professor who induced the trance. This was followed by a comparable response to the writer's request that he describe in as orderly and as comprehensive a fashion as possible his recollection of the actual suggestions given him at that time and the responses he made to them.

Slowly, thoughtfully, the subject described an eye closure technique with suggestions of relaxation, fatigue and sleep. As he progressed in his verbalizations of his recollections, his eyes slowly closed, his body relaxed, his speech became slower and more hesitant, and he required increasingly more prompting until it became evident that he was in a trance state. Thereupon, he was asked to state where he was and who was present. He named the previous

university and the former professor. Immediately he was asked to listen carefully to what the writer had to say also, and he was then employed to demonstrate the phenomena of the deep trance.

This same technique of utilizing previous hypnotic learnings has been employed with patients, particularly those who develop inexplicable resistances to further hypnosis, or who declare that they have been in hypnotherapy elsewhere and therefore doubt seriously their ability to develop a trance for a new hypnotherapist. The simple measure of seating the patient comfortably and asking him to give a detailed account of a previous successful trance experience results in a trance, usually decidedly rapidly and usually a revivification of the previous trance, or even a regression to that trance. This technique can also be utilized with one's own patients who have developed resistance to further hypnosis. In such instances, resolution of the resistances is frequently greatly facilitated and therapy accelerated.

Another Utilization Technique, comparable to those immediately above, has been employed experimentally and clinically on both naive and experienced subjects. It has been used as a means of circumventing resistances, as a method of initial trance induction, and as a trance reinduction procedure. It is a technique based upon an immediate direct eliciting of meaningful unconsciously executed behavior which is separate and apart from consciously directed activity except that of interested attention. The procedure is as follows:

EXAMPLE 6

Depending upon the subject's educational background, a suitable casual explanation is given of the general concepts of the conscious and of the unconscious or subconscious minds. Similarly, a casual though carefully instructive explanation is given of ideomotor activity with a citing of familiar examples, including hand levitation.

Then, with utter simplicity, the subject is told to sit quietly, to rest his hands palm down on his thighs, and to listen carefully to a question that will be asked. This question, it is explained, is possible of answer only by his unconscious mind, not by his conscious mind. He can, it is added, offer a conscious reply, but such a reply will be only a conscious statement and not an actual reply to the question. As for the question itself, it can be one of several that could be asked, and it is of no particular significance to the personality. Its only purpose is to give the unconscious mind an opportunity to manifest itself in the answer given. The further explanation is offered that the answer will be an ideomotor response of one or the other hand upward, that of the left signifying an answer of "no," that of the right a "yes," to the question asked the unconscious mind.

The question is then presented: "Does your unconscious mind think that you can go into a trance?" Further elaboration is offered again, "Consciously you cannot know what your unconscious mind thinks or knows. But your unconscious mind can let your conscious mind discover what it thinks or understands by the simple process of causing a levitation of either the right or the left hand. Thus your unconscious mind can communicate in a visibly recognizable way with your conscious mind. Now just watch your hands and see what the answer is. Neither you nor I know what your unconscious mind thinks, but as you see one or the other of your hands lifting, you will know."

If there is much delay, additional suggestions can be given: "One of your hands is lifting. Try to notice the slightest movement, try to feel and to see it, and enjoy the sensation of its lifting and be pleased to learn what your unconscious thinks."

Regardless of which hand levitates, a trance state supervenes simultaneously, frequently of the somnambulistic type. Usually it is advisable to utilize, rather than to test, the trance immediately, since the subject tends to arouse promptly. This is usually best done by remarking simply and casually, "It is very pleasing to discover that your unconscious can communicate with your conscious mind in this way, and there are many other things that your unconscious can learn to do. For example, now that it has learned that it can develop a trance state and to do it remarkably well, it can learn various trance phenomena. For instance, you might be interested in ————————," and the needs of the situation can then be met.

In essence, this technique centers in the utilization of the subject's interest in his own unconscious activity. A "yes" or "no" situation is outlined concerning thinking, with action contingent upon that thinking and constituting an overt unconscious communication, a manifestation basic to and an integral part of an hypnotic trance. In

other words, it is necessary for the subject to go into a trance in order to discover the answer to the question.

Various experienced subjects, approached with this technique, have recognized it immediately and made comment to the effect: "How interesting! No matter which answer you give, you have to go into a trance first."

The willing subjects disclose from the beginning their unaffected interest, while resistant unwilling subjects manifest their attitudes by difficulty in understanding the preliminary explanations, by asking repeatedly for instructions and then by an anticipation of hand levitation by lifting the left hand voluntarily. Those subjects who object to trance induction in this manner tend to awaken at the first effort to test or to utilize the trance. Most of them, however, will readily go back into the trance immediately when told, "And you can go into a trance just as easily and quickly as your unconscious answered that question just by continuing to watch as your unconscious mind continues to move your hand up toward your face. As your hand moves up, your eyes will close, and you will go into a deep trance." In nearly all instances, the subject develops a trance state.

An essential consideration in this technique, however, is an attitude on the part of the operator of utter expectancy, casualness, and simplicity, which places the responsibility for any developments entirely upon the subject.

A patient's misunderstandings, doubts, and uncertainties may also be utilized as the technique of induction. Exemplifying this approach are the instances of two patients, both college bred women, one in her late thirties, the other in her early forties.

Example 7

The first patient expressed extreme doubt and uncertainty about the validity of hypnotic phenomena as applied to herself as a person, but explained her desperate need for help compelled her to try it as a remotely possible means of therapy.

The other declared her conviction that hypnosis and physiological sleep were necessarily identical or, at the very least, equal and complementary component parts of a single psychophysiological manifestation and that she could not possibly go into a trance without first developing physiological sleep. This, she explained, would preclude therapy, and yet she felt that hypnosis offered the only possible, however questionable, means of psychotherapy for her, provided that the hypnotherapy was so conducted as to preclude physiological sleep. That this was possible she disbelieved completely.

Efforts at explanation were futile and served only to increase the anxiety and tension of both patients. Therefore an approach utilizing their misapprehensions was employed, and the technique, except for the emphasis employed, was essentially the same for both patients. This was done by instructing each that deep hypnosis would be employed and that each would cooperate in going into a deep trance by assessing, appraising, evaluating, and examining the validity and genuineness of each item of reality and of each item of subjective experience that was mentioned. In so doing, each was to feel under obligation to discredit and to reject anything that seemed at all uncertain or questionable. For the one, emphasis was placed primarily upon subjective sensations and reactions with an interspersed commentary upon reality objects. For the other, attentiveness to reality objects as proof of wakefulness was emphasized with an interspersing of suggestions of subjective responses. In this manner, there was effected for each a progressive narrowing of the field of awareness and a corresponding increase in a dependency upon and a responsiveness to the writer. As this state developed, it became possible to induce in each a somnambulistic trance by employing a simple eye closure progressive relaxation technique slightly modified to meet the special needs of each patient.

To illustrate the actual verbalization employed, the following sample of utterances, in which the emphasis is approximately evenly divided between subjective aspects and reality objects, is offered:

"As you sit comfortably in that chair, you can feel the weight of your arms resting on the arms of the chair. And your eyes are open and you can see the desk and there is only the ordinary blinking of the eyelids, which you may or may not notice, just as one may notice the feeling of the shoes on one's feet and then again forget about it. And you really know that you can see the bookcase and you can wonder if your unconscious has noted any particular book title. But now again you can note the feeling of the shoes on your feet as they rest on the floor and at the same time you can become aware of the lower-

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Depending upon the subject's educational background, a suitable casual explanation is given of the general concepts of the conscious and of the unconscious or subconscious minds. Similarly, a casual though carefully instructive explanation is given of ideomotor activity with a citing of familiar examples, including hand levitation.

Then, with utter simplicity, the subject is told to sit quietly, to rest his hands palm down on his thighs, and to listen carefully to a question that will be asked. This question, it is explained, is possible of answer only by his unconscious mind, not by his conscious mind. He can, it is added, offer a conscious reply, but such a reply will be only a conscious statement and not an actual reply to the question. As for the question itself, it can be one of several that could be asked, and it is of no particular significance to the personality. Its only purpose is to give the unconscious mind an opportunity to manifest itself in the answer given. The further explanation is offered that the answer will be an ideomotor response of one or the other hand upward, that of the left signifying an answer of "no," that of the right a "yes," to the question asked the unconscious mind.

The question is then presented: "Does your unconscious mind think that you can go into a trance?" Further elaboration is offered again, "Consciously you cannot know what your unconscious mind thinks or knows. But your unconscious mind can let your conscious mind discover what it thinks or understands by the simple process of causing a levitation of either the right or the left hand. Thus your unconscious mind can communicate in a visibly recognizable way with your conscious mind. Now just watch your hands and see what the answer is. Neither you nor I know what your unconscious mind thinks, but as you see one or the other of your hands lifting, you will know."

If there is much delay, additional suggestions can be given: "One of your hands is lifting. Try to notice the slightest movement, try to feel and to see it, and enjoy the sensation of its lifting and be pleased to learn what your unconscious thinks."

Regardless of which hand levitates, a trance state supervenes simultaneously, frequently of the somnambulistic type. Usually it is advisable to utilize, rather than to test, the trance immediately, since the subject tends to arouse promptly. This is usually best done by remarking simply and casually, "It is very pleasing to discover that your unconscious can communicate with your conscious mind in this way, and there are many other things that your unconscious can learn to do. For example, now that it has learned that it can develop a trance state and to do it remarkably well, it can learn various trance phenomena. For instance, you might be interested in ————————," and the needs of the situation can then be met.

In essence, this technique centers in the utilization of the subject's interest in his own unconscious activity. A "yes" or "no" situation is outlined concerning thinking, with action contingent upon that thinking and constituting an overt unconscious communication, a manifestation basic to and an integral part of an hypnotic trance. In

other words, it is necessary for the subject to go into a trance in order to discover the answer to the question.

Various experienced subjects, approached with this technique, have recognized it immediately and made comment to the effect: "How interesting! No matter which answer you give, you have to go into a trance first."

The willing subjects disclose from the beginning their unaffected interest, while resistant unwilling subjects manifest their attitudes by difficulty in understanding the preliminary explanations, by asking repeatedly for instructions and then by an anticipation of hand levitation by lifting the left hand voluntarily. Those subjects who object to trance induction in this manner tend to awaken at the first effort to test or to utilize the trance. Most of them, however, will readily go back into the trance immediately when told, "And you can go into a trance just as easily and quickly as your unconscious answered that question just by continuing to watch as your unconscious mind continues to move your hand up toward your face. As your hand moves up, your eyes will close, and you will go into a deep trance." In nearly all instances, the subject develops a trance state.

An essential consideration in this technique, however, is an attitude on the part of the operator of utter expectancy, casualness, and simplicity, which places the responsibility for any developments entirely upon the subject.

A patient's misunderstandings, doubts, and uncertainties may also be utilized as the technique of induction. Exemplifying this approach are the instances of two patients, both college bred women, one in her late thirties, the other in her early forties.

Example 7

The first patient expressed extreme doubt and uncertainty about the validity of hypnotic phenomena as applied to herself as a person, but explained her desperate need for help compelled her to try it as a remotely possible means of therapy.

The other declared her conviction that hypnosis and physiological sleep were necessarily identical or, at the very least, equal and complementary component parts of a single psychophysiological manifestation and that she could not possibly go into a trance without first developing physiological sleep. This, she explained, would preclude therapy, and yet she felt that hypnosis offered the only possible, however questionable, means of psychotherapy for her, provided that the hypnotherapy was so conducted as to preclude physiological sleep. That this was possible she disbelieved completely.

Efforts at explanation were futile and served only to increase the anxiety and tension of both patients. Therefore an approach utilizing their misapprehensions was employed, and the technique, except for the emphasis employed, was essentially the same for both patients. This was done by instructing each that deep hypnosis would be employed and that each would cooperate in going into a deep trance by assessing, appraising, evaluating, and examining the validity and genuineness of each item of reality and of each item of subjective experience that was mentioned. In so doing, each was to feel under obligation to discredit and to reject anything that seemed at all uncertain or questionable. For the one, emphasis was placed primarily upon subjective sensations and reactions with an interspersed commentary upon reality objects. For the other, attentiveness to reality objects as proof of wakefulness was emphasized with an interspersing of suggestions of subjective responses. In this manner, there was effected for each a progressive narrowing of the field of awareness and a corresponding increase in a dependency upon and a responsiveness to the writer. As this state developed, it became possible to induce in each a somnambulistic trance by employing a simple eye closure progressive relaxation technique slightly modified to meet the special needs of each patient.

To illustrate the actual verbalization employed, the following sample of utterances, in which the emphasis is approximately evenly divided between subjective aspects and reality objects, is offered:

"As you sit comfortably in that chair, you can feel the weight of your arms resting on the arms of the chair. And your eyes are open and you can see the desk and there is only the ordinary blinking of the eyelids, which you may or may not notice, just as one may notice the feeling of the shoes on one's feet and then again forget about it. And you really know that you can see the bookcase and you can wonder if your unconscious has noted any particular book title. But now again you can note the feeling of the shoes on your feet as they rest on the floor and at the same time you can become aware of the lower-

ing of your eyelids as you direct your gaze upon the floor. And your arms are still resting their weight on the arms of the chair, and all these things are real and you can be attentive to them and sense them. And if you look at your wrist and then look at the corner of the room perhaps you can feel or sense the change in your visual focus and perhaps you can remember when, as a child, you may have played with the experience of looking at an object as if it were far off and then close by, and as associated memories of your childhood pass through your mind, they can range from simple memories to tired feelings because memories are real. They are things, even though abstract, as real as the chair and the desk and the tired feeling that comes from sitting without moving, and for which one can compensate by relaxing the muscles and sensing the weight of the body, just as one can feel so vividly the weariness of the eyelids as fatigue and relaxation develop more and more. And all that has been said is real and your attention to it is real, and you can feel and sense more and more as you give your attention to your hand or to your foot or the desk or your breathing or to the memory of the feeling of comfort some time when you closed your eyes to rest your gaze. And you know that dreams are real, that one sees chairs and trees and people and hears and feels various things in his dreams and that visual and auditory images are as real as chairs and desks and bookcases that become visual images." In this way, with increasing frequency, the writer's utterances became simple, direct suggestions for subjective responses.

This technique of utilizing doubts and misunderstandings has been used with other patients and with experimental subjects and it also adapts well to the use of hand levitation as a final development, since ideomotor activity within the visual range offers opportunity for excellent objective and subjective realities.

Another Utilization Technique centers around the need that some people, potentially excellent subjects, have to resist and to reject completely hypnosis as a personal experience until after it becomes paradoxically an accomplished fact for them.

Occasionally such a person, because of naivete or misdirected resistance, may develop even a somnambulistic trance, but thereafter is likely either to reject hypnosis completely or to limit unduly and inexplicably his capacity for hypnotic responses. More frequently such persons remain seemingly unhypnotizable, often despite an obvious capacity for responsiveness, until their special individual needs are met in a manner satisfying to them. Those who permit themselves limited hypnotic responses may, for example, develop an excellent obstetrical anesthesia but remain incapable of dental anesthesia, or vice versa. But should by some chance the second type of manifestation be secured, there may occur a loss of the capacity for the first type, or there may be a loss of capacity for all hypnotic responses. Another example is the similar type of patient in psychotherapy who will respond hypnotically only to specific types of circumscribed therapeutic problems.

On the whole, these individuals constitute seemingly impossible or unpredictable and unreliable hypnotic subjects until their special needs are met, whereupon they can then become remarkably competent subjects.

Following are accounts of this type of subject, encountered in both experimental and clinical work.

EXAMPLE 8

A 20-year old girl, a member of a group of psychology students actively engaged in experimental hypnosis both as subjects and operators, failed completely to develop any trance phenomena despite many hours of endeavor to go into a trance. She had originally expressed a conviction that hypnosis as a personal experience was impossible but that she hoped to learn otherwise. Finally two of her associates, both competent as an operator or as a somnambulistic subject, suggested to Miss X, as a last resort, a visit to the writer. The situation was explained in full, and Miss X reaffirmed both her conviction and her hope, and she requested the writer to make every possible effort to induce a trance. Her entire appearance and behavior suggested that she was essentially a most responsive type of personality.

She was found to be outwardly most cooperative but actually completely resistive

and unresponsive hypnotically, even after three hours of intensive effort with a great variety of both direct and indirect techniques. This served to confirm Miss X in her conviction of her unhypnotizability and to suggest to the writer the experimental possibility of utilizing Miss X's need to resist and to reject hypnosis as a personal experience as a means of effecting paradoxically trance phenomena or a trance state for her.

To achieve this, Miss X was reminded that her two companions, A and B, were excellent somnambules and could enter a deep trance at a moment's notice. A and B were then instructed openly to remain continuously in the state of psychological awareness that existed for them at the moment and not to betray in any way to Miss X whether or not they had spontaneously gone into a trance state in response to the writer's efforts with Miss X. (They had not developed trance states, a fact obvious to the writer but not to Miss X.)

She was then challenged to scrutinize A and B carefully and to state definitely if she knew if they were in a trance, while A and B, in turn, were told to answer honestly with a simple nod or shake of the head any question put to them when so instructed by the writer.

Miss X confessed her inability to identify the state of awareness of either A or B. She was reminded that she was awake and could not develop a trance state and hence could not manifest trance phenomena, but that A and B, being experienced subjects, could do so readily. She agreed, and the statement was made that, if A and B were in a trance state, negative visual hallucinations could be elicited. Again she agreed. Turning away from the three of them and facing the office wall, the writer offered the following instructions: "Miss X, I want you to observe carefully the responses that A and B make, since I shall not be looking at them, and at the end of my remarks I shall ask them a special question which they are to answer by either a nod or shake of the head, as I explained before. All of you know, do you not, the fish pond (a campus landmark) and all of you can nod your head in answer. You have seen it many times, you know it well, and you can see it any time you want to. Now, Miss X, observe A and B carefully and be ready to report their answer, and A and B, while Miss X continues to await your response, DO NOT SEE (speaking softly, emphatically and looking intently and pointing with slow deliberation at the office wall that was well within Miss X's field of vision), DO NOT SEE THE FISH POND RIGHT THERE. And you don't see the fish pond, do you?" A and B both shook their heads negatively and Miss X excitedly declared, "They are both in a trance. They are showing negative hallucinations." Without comment to her, the writer asked A and B if they saw the students walking past the fish pond or the fish and plants in the water. Again they shook their heads negatively.

Thereupon the writer suggested to Miss X that A and B be left to their own devices while she and he discussed hypnosis. She agreed and almost immediately declared that the demonstration of negative visual hallucinations on the part of A and B had convinced her in some way that she could be hypnotized and that she would be glad to volunteer at any time to go into a trance, that she was certain that she could go into a deep trance.

Instead of replying directly to her statement she was asked if she were willing to talk to A and B. Upon her assent, they were told to ask Miss X the written questions the writer had just handed to them. They asked her if she could see the fish pond and the students walking past it. Upon her affirmative reply, she was asked to state exactly where she was. She described herself as standing with them and with the writer some ten feet away from the campus fish pond.

She was then told by the writer that A and B would be awakened from their "trance" by the simple measure of having them, *while she did likewise*, close their eyes and then at the count of three, there would be a full awakening from all trance states with the continuing ability to go into a trance at any desired future time for any legitimate purpose. She awakened from her trance as instructed with a complete spontaneous amnesia for trance events and with an apparent persistence of her original ideas of her unhypnotizability. The trio was then dismissed, with A and B privately instructed to avoid all mention of hypnosis.

The next day Miss X again volunteered as a subject at the psychology laboratory and developed rapidly a profound somnambulistic trance. So pleased was she that she visited the writer that evening with the request that he make another attempt to hypnotize her. She responded with a deep trance almost immediately, and thereafter did extensive work as an experimental subject.

EXAMPLE 9

A clinical instance in which this same technique was employed centers in an obstreperous 25-year-old patient for whom hypnotherapy was not indicated. Nevertheless he repeatedly demanded hypnosis and in the same breath declared himself unhypnotizable. On one occasion he forced the issue by demanding absolutely, "Hypnotize me even though I'm not hypnotizable."

This demand was met by employing softly spoken suggestions of slow, progressive relaxation, fatigue, and sleep. Throughout the hour that this was done, the patient sat on the edge of his chair, gesticulated and bitterly denounced the entire procedure as stupid and incompetent. At the close of the session, the patient declared that his time and money had been wasted, that he could "remember every ineffectual, stupid suggestion" that had been offered, and that he could "remember everything that took place the whole time."

The writer immediately seized upon these utterances to declare somewhat repetitiously, "Certainly you remember. You are here in the office. Naturally here in the office you can remember everything. It all occurred here in the office, and you were here, and here you can remember everything." Impatiently he demanded another appointment and left angrily.

At the next appointment, he was deliberately met in the reception room. He immediately inquired if he had kept his previous appointment. Reply was given evasively that surely he would remember if he had done so. He explained that on that day he had suddenly found himself at home sitting in his car unable to remember if he had just returned from his appointment or were just leaving for it. This question he debated for an indefinite period of time before he thought of checking with his watch, and then he discovered that the time was long past the proper hour. However, he was still unable to decide the problem because he did not know how long he had debated the question. Again he asked if he had kept his previous appointment, and again he was assured evasively that surely he would remember if he had.

As he entered the office, he stopped short and declared, "I did too keep my appointment. You wasted my time with that silly, soft, gentle, ineffectual hypnotic technique of yours, and you failed miserably."

After a few more derogatory comments from him, he was maneuvered into returning to the reception room, where again he manifested an amnesia for the previous appointment as well as his original inquiries about it. His questions were again parried and he was led back into the office, where for a second time he experienced full recall of the previous appointment.

Again he was induced to return to the reception room with a resultant reestablishment of his amnesia, but upon reentering the office, he added to his recollection of the previous appointment a full recall of his separate entrances into the reception room and the accompanying amnesic states. This bewildered and intrigued him to such an extent that he spent most of the hour going from the office to the reception room and back again, experiencing a full amnesia in the reception room and full recollection, inclusive of the reception room manifestations, of the total experience in the office.

The therapeutic effect of this hypnotic experience was the correction almost immediately of much of the patient's hostile, antagonistic, hypercritical, demanding attitude and the establishment of a good rapport and an acceleration of therapy, even though no further hypnosis was employed.

The technique employed in these two instances is somewhat comparable to the procedure reported by this writer in "Deep Hypnosis and Its Induction" (1) and it has been used repeatedly with various modifications. Patients requiring the use of this technique are usually those with a distressing need for a sense of utter security in the competence of the therapist. Its advantage as a therapeutic technique lies in the fact that it permits the patient to achieve that sense of security through experiential learning as a single separate process rather than through a prolonged demonstration of competence always subject to criticism and rejection.

In essence, this technique is no more than a modification of a much simpler elementary procedure, such as the hand clasp and the postural sway, sometimes so effectively employed to correct minor attitudes of doubt and resistance to trance induction. Its advantage lies in the effectiveness with which it can both elicit the phenomena of even deep hypnosis and correct va-

rious problems of resistance to hypnosis and to therapy.

Another Utilization Technique was employed during a lecture and demonstration before a medical student body. One of the students proceeded, at the beginning of the lecture, to heckle the writer by denouncing hypnosis as a fraud and the writer as a charlatan, and he declared that any demonstration using his fellow students would be a prearranged hoax perpetrated upon the audience. The measures employed were as follows:

EXAMPLE 10

Since he persisted in his noisy, adverse comments as the lecture proceeded, it became necessary to take corrective action. Accordingly, the lecture was interrupted and the writer engaged in an acrimonious interchange with the heckler, in which the writer's utterances were carefully worded to elicit an emphatic contradiction from the heckler, either verbally or by action.

Thus he was told that he had to remain silent; that he could not speak again; that he did not dare to stand up; that he could not again charge fraud; that he dared not walk over to the aisle or up to the front of the auditorium; that he had to do whatever the writer demanded; that he had to sit down; that he had to return to his original seat; that he was afraid of the writer; that he dared not risk being hypnotized; that he was a noisy coward; that he was afraid to look at the volunteer subjects sitting on the platform; that he had to take a seat in the back of the auditorium; that he had to leave the auditorium; that he did not dare to come up on the platform; that he was afraid to shake hands in a friendly fashion with the writer; *that he did not dare to remain silent;* that he was afraid to walk over to one of the chairs on the platform for volunteer subjects; that he was afraid to face the audience and to smile at them; that he dared not look at or listen to the writer; that he could not sit in one of the chairs; that he would have to put his hands behind him instead of resting them on his thighs; that he dared not experience hand levitation; that he was afraid to close his eyes; that he had to remain awake; that he was afraid to go into a trance; that he had to hurry off the platform; that he could not remain and go into a trance; that he could not even develop a light trance; that he dared not go into a deep trance, etc.

The student disputed either by word or action every step of the procedure with considerable ease until he was forced into silence. With his dissents then limited to action alone and caught in his own pattern of contradiction of the writer, it became relatively easy to induce a somnambulistic trance state. He was then employed as the demonstration subject for the lecture most effectively.

The next week-end he sought out the writer, gave an account of his extensive personal unhappiness and unpopularity and requested psychotherapy. In this he progressed with phenomenal rapidity and success.

This technique, either in part or *in toto,* has been used repeatedly in various modifications, especially with defiant, resistive patients, particularly the "incorrigible" juvenile delinquent. Its significance lies in the utilization of the patient's ambivalences and the opportunity such an approach affords the patient to achieve successfully contradictory goals, with the feeling that these derived out of the unexpected but adequate use of his own behavior. This need to meet fully the demands of the patient, however manifested, ought never to be minimized.

Another Technique of Utilization centers in a combination of utilization, distraction, and participatory activity, all of which are illustrated in the following account.

EXAMPLE 11

Seven year old Allan fell on a broken bottle and severely lacerated his leg. He came rushing into the kitchen, crying loudly from both pain and fright and shouting, "It's bleeding; it's bleeding." As he entered the kitchen, he seized a towel and began swabbing wildly to wipe up the blood. As he paused in his shouting to catch his breath, he was told urgently, "Wipe up that blood; wipe up that blood; use a bath towel; use a bath towel; use a bath towel, a bath towel, not a hand towel, a bath towel," and one was handed to him. He dropped the towel he had already had and was immediately told urgently, repetitiously, "Now wrap it around your leg, wrap it tightly, wrap it tightly." This he did awkwardly but sufficiently effectively, whereupon, with continued urgency, he was told, "Now hold it

tight, hold it tight; let's get in the car and go to the doctor's office and hold it tightly."

All the way to the surgeon's office careful explanation was given him that his injury was really not large enough to warrant as many stitches as his sister had had at the time of her hand injury. However, he was urgently counselled and exhorted that it would be his responsibility entirely to see to it that the surgeon put in as many stitches as possible, and he was thoroughly coached all the way there on how to demand emphatically his full rights.

At the surgeon's office, without awaiting any inquiry, Allan emphatically told the nurse that he wanted 100 stitches. She made no response, but merely said, "This way, sir, right to the surgery." As she was followed, Allan was told, "That's just the nurse. The doctor is in the next room. Now don't forget to tell him everything just the way you want it."

As Allan entered the room, he announced to the surgeon, "I want 100 stitches. See!" Whipping off the towel, he pointed at his leg and declared, "Right there, 100 stitches. That's a lot more than Betty Alice had. And don't put them too far apart. And don't get in my way. I want to see. I got to count them. And I want black thread, so you can see it. Hey, I don't want a bandage. I want stitches!"

It was explained to the surgeon that Allan understood well his situation and needed no anesthesia, and to Allan the writer explained that his leg would first have to be washed. Then he was to watch carefully and notice the placing of the sutures to make sure they were not too far apart and that he was to count each one carefully and not to make any mistakes in his counting.

While the surgeon performed his task in puzzled silence, Allan counted the sutures and rechecked his counting, demanded that the sutures be placed closer together and complainingly lamented that he would not have as many as his sister. His parting statement to the surgeon was to the effect that, with a little more effort, the surgeon could have given him more sutures.

On the way home, Allan was comforted regarding the fewness of the sutures and adequately complimented on his competence in overseeing so well the entire procedure. It was also suggested that he eat a big dinner and go to sleep right afterwards so that his leg could heal faster, so that he would not have to go to the hospital the way his sister did. Full of zeal, Allan did as suggested.

No mention of pain or anesthesia was made to Allan at any time nor were any "comforting reassurances" offered. Neither was there any formal effort to induce a trance. Instead, various aspects of the total situation were utilized to distract his attention completely away from the painful considerations and to focus it upon values of importance to a seven year old boy and to secure his full, active cooperation and intense participation in dealing with the entire problem adequately.

In situations such as this, the patient experiences as a personality a tremendously urgent need to have something done. Recognition of this need and a readiness to utilize it by doing something in direct relationship to the origin of the need constitutes a most effective type of suggestion in securing the patient's full cooperation for adequate measures.

Example 12

To cite another similar illustrative example, when little Roxanna came sobbing into the house, distressed by an inconsequential (but not to her) scratch upon her knee, adequate therapy was not assurance that the injury was too minor to warrant treatment, nor even the statement that she was mother's brave little girl and that mother would kiss her and the pain would cease and the scratch would heal. Instead, effective therapy was based upon the utilization of the personality need for something to be done in direct relationship to the injury. Hence, a kiss *to the right*, a kiss *to the left* and a kiss *right on top* of the scratch effected for Roxie an instantaneous healing of the wound and the whole incident promptly became a part of her thrilling historical past.

This technique, based as it is upon the utilization of strong personality needs, is effective with both children and adults, and it can be adapted readily to situations requiring in some way strong, active, intense responses and participation by the patient.

These techniques of suggestive therapy, in one form or another, are in the repertoire of every experienced mother and they are as old as motherhood. Every experienced general practitioner employs them regularly without necessarily recognizing them formally as based upon suggestion. But with the

development of clinical hypnosis, there is a need to examine into and to give recognition to those psychological principles that enable the communication of desirable understandings at times of stress.

Another type of Utilization Technique is based upon a process of conditioning behavioral manifestations and then interpolating into them new and corrective forms of behavior.

Example 13

An example of this is the therapy employed to correct the nightmares developed during convalescence by seven-year-old Robert, a traffic casualty, suffering from a skull fracture, brain concussion, fractured thighs and other varied injuries.

Upon his return home in a body cast from the hospital, he was noted almost nightly to suffer from nightmares. These followed essentially the same pattern each time. They began with moaning, followed by frightened crying, then shuddering sobs, and finally culminated with the frightened cries, "Oh, oh, it's going to hit me—it's going to hit me," followed by a shuddering collapse into silence and slow, shallow breathing, as if he had fainted.

Sometimes several nightmares would occur in a single night, sometimes only one, sometimes he would skip a night. He had no waking memory of these nightmares, and he disclaimed dreams.

Upon first noting the nightmares, an effort was made to arouse him from them, but the first few attempts were futile. When the lights were turned on in his bedroom, his eyes were found to be wide open, his pupils dilated, his face contorted in an expression of terror, and his attention could not be secured. When, however, he repeated his phrase of "It's going to hit me," his eyes would shut, his entire body would relax, and he would remain unresponsive as if in a faint for several minutes. Then he would seem to lapse into physiological sleep from which he could be aroused but with no memory of the nightmare.

When all these findings had been confirmed repeatedly, a technique was devised to secure his attention and to correct the nightmare. The approach to the problem was relatively simple and comprehensive and was based upon the assumption that the nightmares were essentially a distorted and disorderly, perhaps even fragmentary, reliving of the accident. Therefore, they could not be distorted or overthrown, but would have to be accepted and then modified and corrected.

The procedure was as follows: At the beginning of his nightmare, as his moaning began, Robert was told, in a cadence and tone that matched his outcries, "Something's going to happen — it's going to hurt you bad — it's a truck — it's coming right at you — it's going to hurt you — it's going to hit you — hit you — hurt you—hit you—hurt you awful bad." These utterances were matched with his outcries and were terminated with his collapse. In other words, an effort was made to parallel in time and in character the inner subjective stimulation he was experiencing with external stimulation. In this way it was hoped to effect an association between the two types of stimulation and possibly to condition the one to the other.

The first night that the procedure was employed, Robert had two nightmares. The next night he again had two more. After a long wait and while he was sleeping peacefully, the procedure was employed again, and a third nightmare developed almost immediately.

On the third night, after he had been sleeping peacefully for some time and before a nightmare had developed, the procedure was deliberately employed twice. Both times a nightmare resulted, apparently in response to the procedure. A third nightmare was later elicited that night by the same procedure but with the addition of a new phrase that could possibly capitalize upon wishes and feelings without distorting the reality involved. This phrase was the statement that, "There is another truck on the other side of the street and that one won't hit you. It will just go right by." The reason for this type of interpolation was to employ an idea that would be entirely acceptable and yet would not alter the historical reality. Then, if accepted, the way would be paved for more pertinent interpolations.

The next night he developed a nightmare spontaneously, which was treated by the modified procedure. A second nightmare was deliberately induced later that night and handled by a still further modification of the procedure, the change being the addition of, "but you will get well, all well, all well."

Thereafter, night after night, but only when he developed a spontaneous nightmare, was this general procedure followed. His utterances and cries were matched, but each time with a progressive modification of the writer's utterances until the final

content was nothing more than, "There's a truck coming, and it is too bad it is going to hit you. You will have to go to the hospital, but that will be all right because you will come home, and you will get all well. And all the other cars and trucks on the street you will see, and you will keep out of their way."

As the change was made progressively in the statements said to him, the character and severity of the nightmares slowly changed and lessened until it seemed that Robert was merely rousing slightly and listening for the reassurance offered.

From beginning to end, the therapy of the nightmares covered a period of one month, and the last three were scarcely more than a slight seeming arousal from sleep, as if to assure himself vaguely of the writer's presence. Thereafter, to his present age of fourteen, he has continued to sleep well and without a recurrence of his nightmares.

The following Utilization Technique is one based upon the employment of seemingly inconsequential irrelevant considerations and an apparent disregard or oversight of the major issues involved. Following are two illustrative instances.

Example 14

A 70 year old woman, born in a rural community, had not been allowed to attend school, since her parents did not believe in education for women. At the age of 14 she married a youth of 16, whose formal education was limited to his signature for signing checks and "figgering." The bride was pleased with her husband's greater education and resolved to have him teach her, since she resented her lack of schooling. This hope did not materialize. During the next six years she was kept busy with farm work and pregnancies, but she did learn to "figger" excellently but only mentally, since it was apparently impossible for her to learn to write numerals. Neither was she able to learn to sign her name.

At the age of 20, she hit upon the idea of furnishing room and board for the local rural schoolteacher, with the intention of receiving, in return for reduced rates, the much desired instruction in reading and writing.

Each school year for the next fifty years she made and kept her agreement, and the teachers hopefully began the attempt and finally, some soon, others only after prolonged labor, abandoned the task of teaching her as hopeless. As the community grew, the number of teachers increased until she was boarding year after year a total of four. None succeeded, despite the sincerity of her desire and the honesty of their effort. Her children went through grade school, high school and college, and they too tried to instruct their mother but without results.

Each time she was given a lesson, invariably she developed, after the manner of a seriously frightened small child, a state of mental blankness or a state of frantic disorganized efforts to please that led to a total impasse.

It was not that "Maw" was unintelligent. She had an excellent memory, good critical judgment, listened well, and was remarkably well informed. She often gave strangers, through her conversation, the impression that she had a college education, despite her faulty grammar.

At the time she was seen by the writer, she and her husband had been retired for some years, but she was still boarding teachers, three at that time. These three had made it a joint project for several months to teach her the elements of reading and writing but were finally forced to give up. They described her as, "It's always the same. She starts the lesson period full of enthusiasm and hope and that's the way you feel, too. But inside of a minute you'll swear that you must be talking a foreign language to her because she doesn't understand a thing you say or do. No matter what you say or do, she just sits there with those eager, troubled eyes, trying hard to make sense out of the nonsense you seem to be saying to her. We've tried everything. We've talked to some of our friends who have tried. She is just like a badly scared child who has blanked out completely, except that she doesn't seem scared but just blanked out. Because she is so intelligent, we just couldn't believe that she couldn't learn easily."

The patient herself explained, "My sons that graduated from engineering told me that I've got the right gears for reading and writing, but that they are of different sizes and that's the reason they don't mesh. Now you can file them down or trim them to size because I've got to learn to read and write. Even boarding three teachers and baking and cooking and washing and ironing for them ain't half enough work for me and I get so tired sitting around with nothing to do. Can you learn me?"

This history and much more comparable material suggested a long, persistent, cir-

cumscribed psychological blocking that might yield to hypnotic suggestion. Accordingly she was accepted as a patient with the rash promise that she would be reading and writing within three weeks' time, but *without being taught anything that she did not already know and had known for a long time.*

Although this declaration puzzled her greatly, so great was her desire that she was easily persuaded to cooperate fully in every way with the writer, *even though he might not teach her anything except how to let her read and write which she already knew.*

The next step was to induce by simple, direct suggestions, a light-to-medium trance, predicated, in accord with her own unique neurotic needs, upon *her full understandings that it would be something apart from and completely unrelated to her learning problem; that there would be no effort to teach her anything she did not already know; that the trance would be employed only to let her do things she already knew how to do; and that everything undertaken would be something she had learned about a long time ago.* With her responses to hypnosis contingent upon these understandings, it became possible to induce a trance and to instruct her to remain in it until otherwise instructed and to obey completely and without argument every instruction given her *provided that it was always something in relationship to things she had already learned a long time ago.*

Thereupon paper and pencil were pushed toward her and she was instructed "*not to write* but just pick up the pencil any old way and hold it in your hand any old way. You and I know you can do that. Any baby can pick up a pencil in any old way.

"O. K. Now make a mark on the paper, any old scribbling mark *like a baby that can't write makes.* Just any old crooked mark! That's something you don't even have to learn.

"O. K. Now make a straight mark on the paper, like you make with a nail when you want to saw a board straight or with a stick when you mark a row in the garden. You can make it short or long or straight up and down or just lying down.

"O. K. Now make a mark like the hole in a doughnut and then two marks like the halves of the doughnut when you break the doughnut in halves.

"O. K. Now make two slanted marks, one like one side of the gable roof of a barn and the other like the other side.

"O. K. Now make a mark like a horse's crupper standing on the little end. And now poke the pencil at the paper and make just a little spot.

"O. K. Now all those marks you made you can make different sizes and in different places on the paper and in different order and even one on top of the other or one next to another. O. K.?

"Now, those marks that you made and can make again any old time [straight vertical, horizontal, and oblique lines; circles, semicircles, etc.] *are writing, but you don't know that it is writing. You don't have to believe that it is writing*—all you have to do is know that you can make those marks and that isn't hard to know, because you already know it. Now I'm going to awaken you and do the same thing all over and I want you to practice at home making those marks. O. K.?"

The procedure of the trance state was repeated with no additional elaboration in the waking state and with the same instructions. She was dismissed, not entirely pleased but somewhat intrigued, with instructions to return the next day.

A medium-to-deep trance was readily induced and it was learned that she had spent approximately two hours "marking marks!" The explanation was then offered her that the only difference between a pile of lumber to construct a house and the completed house was that the latter was the former "merely put together." To this she agreed wonderingly. She was then shown a rectangle and told, "That's a rough plan of the side of a 40-foot barn." The rectangle was then bisected vertically and she was told, "Now it's a rough plan of two 20-foot long barns end to end." Still wondering, she agreed.

She was then shown a neat copy of the "marks" she had made the previous day and was asked to select those that could be used to make a small scale "rough plan" of the side of a 40-foot barn and to "mark out" such a plan. She was then asked to "split it in the middle" and then to "mark out one 20-foot side of a barn up on top of another one the same size." Bewilderedly she did so.

She was then asked to use the oblique lines to "mark out" the gable end of a roof and then one of the straight lines to "stretch halfway up from one side to the other like a scantling used to brace the end of the roof." Obediently she did so and she was emphatically assured that she now knew how to put marks together, but that she should take half of the doughnut hole and use it repeatedly to "round off the corners of the side of the barn." This she did.

Thereupon she was emphatically instructed as an indisputable item of information that not only did she know how to write but the fact had been irrefutably established. This dogmatic statement puzzled her greatly but without diminishing her cooperation. Before she could organize any thoughts on this matter, she was peremptorily instructed to inspect the "marks" and "put them together in twos and threes in different ways."

With a little judicious maneuvering and indirect guidance on the part of the writer, it was possible to secure among the various "combinations" she made the complete alphabet printed in block form and with some of the letters formed in rounded fashion. These were carefully reduplicated on a separate sheet of paper. Thereupon, a newspaper advertisement, magazine advertisements and a child's textbook were brought out, and systematically it was pointed out that she, without recourse to a copying procedure, had printed each of the letters of the alphabet. She then was maneuvered into orienting her recognition of the letters not by comparing her printed letters with those in the book but by validating the letters in the book by their similarity to her own constructions. Great care was exerted to prevent her from losing this orientation. Her excitement, pleasure and interest were most striking. The entire procedure was then repeated in the waking state.

The next problem was to interest her safely in "letter building" and "word building" and the "naming," not reading each new construct. Each step was accomplished first in the trance state and then repeated in the waking state. No mention was made of writing or reading, circumlocutions being used. For example, she would be told, "Take some of these straight or crooked lines and build me another letter. Now build me a few letters along side of each other and *name* the word."

Then she was taught that "a dictionary is not a book to read; it is a book to look up words in, just like a picture book isn't for reading, it's just to look at pictures." With the dictionary she was enabled to discover that she could use vertical, horizontal, oblique or curved lines to "build" any word in it and great care was taken to emphasize the importance of "the right name for each word, just like you never forget the *correct* name for a harrow, a disk or a cultivator."

As a succeeding step, she was taught the game of anagrams which was described as entirely comparable to tearing down "the back porch and using the old lumber to build on a new room with a kitchen sink." The task of "naming" the words became most fascinating to her.

The final step was to have her discover that "naming words is just like talking" and this was achieved simply by having her "build" words taken from the dictionary, apparently chosen at random but carefully selected by the writer and which she was asked to "set down here or there on this straight line." Since the words were not put down in correct order but were in correct spacing, the final result when she was called upon to "name" them astonished her. The words were, "Get going Ma and put some grub on the table." As she completed "naming" the words, she declared, "Why, that's what Pa always says —it's just like talking."

The transition from "talking words" to "reading words" was then a minor matter. Within three weeks' time she was spending every spare minute with her dictionary and a *Readers' Digest*. She died of a cerebral hemorrhage at the age of 80, a most prolific reader and a frequent letter writer to her children and grandchildren.

Example 15

The second instance concerns a nine-year-old girl who began failing all of her school work and withdrawing from social contacts. When questioned, she would reply either angrily or tearfully in a defensive fashion, "I just can't do nothing."

Inquiry disclosed good scholastic work in previous years, but poor adjustment on the playground in that she was inept, hesitant, and awkward. However, her parents were concerned only about her scholastic rating and sought psychiatric aid for their daughter from the writer.

Since the girl would not come to the office, she was seen each evening in her home. One of the first bits of information elicited was that she didn't like certain girls because they were always playing jacks or rollerskating or jumping rope. "They never do anything that's fun." It was learned that she had a set of jacks and a ball but that she "played terrible." The writer challenged her, on the grounds that infantile paralysis had crippled his right arm, to the effect that he could play a "more terrible" game than she could. The challenge was accepted, but after the first few evenings a spirit of good competition and good rapport developed, and it was relatively easy to induce a light-to-medium trance. Some of the games were played in

the trance state and some in the waking state. Within three weeks she was an excellent player, though her parents were highly displeased because of the writer's apparent lack of interest in her scholastic difficulties.

After three weeks of playing jacks, the writer declared that he could be worse on roller skates than she could be, since his leg was crippled. There followed the same course of developments as with the jacks, only this time it took only two weeks for her to develop reasonable skill.

Next she was challenged to jump the rope and see if she could possibly teach the writer this skill. In a week's time she was adept.

Then the writer challenged her to a bicycle race, pointing out that he actually could ride a bicycle well, as she herself knew. The statement was boldly made that he could beat her in a race and only her conviction that he would defeat her allowed her to accept. However, she did promise in the trance state to try hard. She had owned a bicycle for more than six months and had not ridden it more than one city block.

At the appointed time she appeared with her bicycle but demanded, "You have got to be honest and not just let me win. You got to try hard and I know you can ride fast enough to beat me, so I'm going to watch you so you can't cheat."

The writer mounted his bike, and she followed on hers. What she did not know was that the use of both legs in pedalling constituted for the writer a serious handicap in riding a bicycle and that ordinarily only his left leg is used. But as the girl watched suspiciously, she saw the writer most laboriously pedaling with both feet without developing much speed. Finally convinced, she rode past to win the race to her complete satisfaction.

That was the last therapeutic interview. She promptly proceeded to become the grade school champion in jacks and rope jumping. Her scholastic work improved similarly.

Years later the girl sought out the writer to inquire how he had managed to let her excel him in bicycle riding. She explained that learning to play jacks and jump the rope and to rollerskate had had the effect of bolstering her ego immensely, but that she had had to discredit those achievements considerably because of the writer's physical handicaps. The bicycle riding, however, she knew was another matter.

She explained that at that time she knew the writer to be a good bicyclist, and she was certain that he could beat her and that she had no intention of letting the race be handed to her. The fact that the writer had genuinely tried hard and that she had beaten him convinced her that she "could do anything." Elated with that conviction, she had found school and all that it offered a most pleasant challenge.

A definitely different type of Utilization Technique is one in which the general reality situation is employed as the essential component of the induction procedure. A basic consideration is a seemingly incidental or unintentional interference with the subject's spontaneous responses to the reality situation. This leads to a state of uncertainty, frustration, and confusion in the subject, which effects in turn a ready acceptance of hypnosis as a possible means of resolving the subjective situation. It is a combined utilization-confusion technique and can be used experimentally or clinically on both children and adults. It is frequently a technique of choice, and sometimes it is very simply and rapidly accomplished, with shy timid children and with self-conscious adults. An illustrative instance is as follows:

EXAMPLE 16

At a lecture before the professional staff of a hospital, a student nurse who had neither experienced nor witnessed hypnosis was authoritatively instructed by her superior to act as a "volunteer" subject for the writer. Although actually interested, she manifested definite resentment as she hesitantly came forward. Advantage was taken of her emotional state to employ a utilization technique that would effect, first, a state of confusion to obviate resistance and, secondly, the ready induction of hypnosis.

As she approached the front of the lecture room from a side aisle, a chair was moved somewhat ostentatiously into place for her. When she was within six feet of the chair, she was asked, "Will you sit in *this* chair *here*?" As the word "this" was spoken, the writer's left hand was carefully placed on the back of that chair, as if to point it out. As the word "here" was spoken, the writer gestured with his right hand, as if indicating a chair to the side of

the actual chair. There was a momentary pause in her behavior, but as she continued her approach, the chair was pushed gently toward her, causing a slight but definitely audible noise as it scraped on the floor. As she came still closer to the chair, it was pulled slightly to one side away from her and immediately, as she seemed to note this, it was pushed back an inch or so, and then another inch or so forward and to the side toward her. All of this she noted because the writer's left hand on the back of the chair constituted a focussing point for her gaze.

By this time she had reached the chair, had turned and had begun to lower her body into it. As soon as her knees were bent, the chair was rotated somewhat noisily about one inch and, as she paused again momentarily to turn her head to look at the chair, the writer took hold of her right elbow and moved it away from her body slightly and then a bit forward. As she turned to look in response to this, her elbow was released and her right hand and wrist were gently taken and moved a little upward and then downward. As she shifted her gaze from her elbow to her hand, she was told quietly, "Just sit *all* the way down in the chair and as you do so, just close your eyes and go 'way deeply into the trance and as you continue to sit there, sleep over more deeply in a hypnotic trance." As she settled in the chair, the additional statement was made, "And now you can take a deep comfortable breath while I go on with my lecture." Thereupon, without any further delay or training she was immediately employed to demonstrate the somnambulistic trance and many other phenomena of the deep trance. She was awakened from the trance approximately an hour later.

An aspect of the original reality situation constituting a part of the utilization technique was re-established by the measure of the writer, at the moment of awakening her, again holding her right hand and wrist as he had been doing at the moment of trance induction. Accordingly, in awakening, she reverted at once to the original state of conscious bewilderment which had been interrupted by the rapid development of a deep trance. This she demonstrated, along with a total amnesia for the events of the preceding hour, by stating, "But you've got me so confused I don't know what to do. Is it all right to sit this way, and what do you want me to do with my hand?" Reply was made, "Would you like to go into a trance?" She answered, "I don't really know. I'm not sure. I don't even know if I can be hypnotized. I suppose maybe I could. I'm willing to try if you want me to." She still had no awareness that she had been in a trance and that an hour had elapsed. This amnesia continued to persist. She was asked what she meant by saying that she was confused. "Well, when I started to come up here, you asked me to sit in this chair and then you started moving it first one way and then another and then somehow you started to move my arm and before I knew what you wanted, you started moving my hand and I'm still confused. What do you want me to do?"

In this last question, the subject defines adequately the goal of a confusion technique, whether based upon direct suggestions eliciting variously oriented and contradictory responses from the subject or, as in this instance, upon a utilization technique employing various aspects of the reality situation. This goal is an urgent pressing need on the part of the subject to have the confusion of the situation clarified, and hence, the presentation of the suggestion of trance state as a definitive idea is readily accepted and acted upon. In this instance, she accepted at once the instructions, "Sit down," "Close your eyes," "Sleep deeply." These instructions dispersed for her all of the confusion she had been experiencing.

For this subject, as in other instances in which this type of technique has been employed, the utilization of the reality situation was of such character that she could formulate no subjectively adequate responses. This resulted in an increasing need to make some kind of a response. As this desire increased, an opportunity for response was presented to her in a form rendered *inherently appropriate and effective by the total situation.* Thus, the very nature of the total situation was utilized in the technique of induction.

To summarize, a number of differing special techniques of hypnotic trance induction are reported and illustrated by clinical and experimental examples. These methods are based upon the utilization of the subject's own attitudes, thinking, feeling, and behavior, and aspects of the reality situation, variously employed, as the essential components of the trance induction procedure. In this way, they

differ from the more commonly used techniques which are based upon the suggestion to the subject of some form of operator-selected responsive behavior. These special techniques, while readily adaptable to subjects in general, demonstrate particularly the applicability of hypnosis under various conditions of stress and to subjects seemingly not amenable to its use. They also serve to illustrate in part some of the fundamental psychological principles underlying hypnosis and its induction.

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CONCERNING THE TREATMENT OF ENURESIS

by Galina Solovey, M.D., and Anatol Milechnin, M.D.[1]

Enuresis is defined as an involuntary micturition with no gross organic causes, taking place at night and/or during the day, beyond a certain age-level. Regarding this last point, opinions differ. For example, Kanner (1), Bakwin and Bakwin (2), and others place the boundary-line between normal and abnormal bed-wetting at the age of three years, Hallgren (3) believes children should not be considered enuretics till they are four years old, and there are authors who, like Crosby, set the limit at the age of five.

This is a frequent disorder in children that may persist to adulthood. In a total of 1992 school children, Hallgren (3) found that there had been enuresis in 13.2% of the boys and 8.4% of the girls. Among the patients, children or adults, who have consulted us because of various psychogenic symptoms, approximately one out of every four had been an enuretic during some period in his life, with the subsequent spontaneous disappearance of this symptom.

About three fourths of the patients who come to be treated for enuresis have had this disorder since infancy, never having established complete bladder control. The severity of the enuresis is often said to have varied, even with temporary cessation of the bed-wetting. In one fourth of the cases, enuresis began in later childhood.

Enuresis is rarely monosymptomatic, being usually accompanied by other psychogenic disorders, such as stuttering, tics, nightmares, timidity, etc. The course of these various symptoms is not necessarily parallel to the course of enuresis. For example, stuttering may disappear at a certain age and enuresis persist, or vice versa.

Like other psychogenic disorders, enuresis is brought about by an inadequate balance between the stabilizing and the disturbing emotions that a child is made to experience in the course of its principal hypnotic relationships (4), both within and outside the family circle, during the period of its psychological formation. This subject has been lengthily considered in other articles (5, 6).

The variations in the beginning and course of enuresis reflect the fluctuations of alteration and normalization of the emotional balance the individual has in the midst of his principal hypnotic relationships.

But the normalization of the person's emotional balance does not always determine the disappearance of the symptoms that resulted from its alteration (7). For example, an enuresis which persisted for a sufficiently long period of time may sometimes become a habit which will remain after the termination of its original cause.

In its turn, the enuresis that has turned into a habit may secondarily exert a more or less intense effect on the emotional condition of the person.

It is important to consider these different situations, because the enuresis that constitutes a symptom of emotional disorder requires psychotherapy, and the enuresis that has become a habit requires re-education to help the person to lose this habit. Of course, individual cases are likely to need a combination of these two elements, psychotherapy and re-education, in varying proportions.

Psychotherapy results from the com-

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bined action of the therapist, the environment, and the patient himself (7).

The relationship between therapist and patient usually has the characteristics of a secondary hypnotic relationship (4) as compared with the patient's relationships in his daily-life environment, many of which are principal ones, that is, hypnotic relationships which are maintained by constant renewal for long period of time. Since it is the effect of these principal hypnotic relationships that generally determines the need for consultation, it is evident that the daily-life environment of the patient may help, hinder, or annul the efficacy of the therapist's action.

For this reason, it is necessary to make a diagnosis of the emotional balance of the child, as determined by its interpersonal relationships (5). Such a diagnosis is not always easily made, but may require a number of interviews, and may even have to be changed in the course of treatment.

We have observed that the incidence of enuresis is somewhat higher in children whose emotional balance has been altered by a relative insufficiency of stabilizing emotions and a predominance of negative emotional nuances of oppression, irritation, etc., than in receptive over-protected children who are guarded excessively against disturbing emotions (8). The latter are more likely to present conduct problems and certain psychosomatic symptoms, like psychogenic asthma, functional digestive trouble, etc.

We will now briefly indicate some schematic situations that appear combined in different proportions, calling for individualized therapeutic procedures in every case.

There are many variants in the case of the enuretic patient whose principal hypnotic relationships cause him to experience a relative insufficiency of stabilizing emotions. The patient may come from an environment that not only does not stimulate sufficiently this kind of emotions, but also restricts his freedom for obtaining such stimulation from other sources ("rejecting over-protection") and/or makes him experience a marked excess of negative emotional nuances of oppression, dissatisfaction, irritation, etc. Under these circumstances, psychotherapy is likely to require a long time, for it is understandable that the short and infrequent interviews with the therapist can hardly be expected to fill the deficiencies of the psychological environment in which the patient lives. It is extremely difficult in many cases to obtain a change in this environment, for neurotic families are usually either unwilling or unable to follow the therapist's advice in this respect (9).

It is different when the patient has hypnotic relationships with psychologically normal people, and his disorder is due either to a temporary block of principal hypnotic relationships or to diverse temporary causes. In such a case, the direct action of the therapist can be most effective. Even spectacular results may be obtained in the early treatment of some patients with anxiety[2] in whom enuresis has not yet become a habit.

Enuresis may also be found in an environment of "accepting over-protection," that at the same time does not make the child experience the disturbing emotions it needs for a normal emotional balance, and deprives it of the possibility of establishing hypnotic relationships outside a small family circle and obtaining from them a much-needed compensation.

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[2] We understand anxiety to be the direct result of an abrupt block of a child's principal hypnotic relationship with its parents or parent-substitutes, acutely revealed when the child has a special need of emotional stabilization (after having experienced a disturbing emotion which he cannot regulate alone) and lacks possibilities of obtaining the necessary help from other people (5).

In such a situation, the basic requisite for psychotherapy is to obtain a change in the parents' attitude, eliminating the undesirable over-protection and letting the child have the necessary freedom. The therapist's personal interviews with the child are completely ineffective, and unless the patient's everyday-life environment can be modified, the treatment is bound to fail.

Only in some special cases, when the enuresis of an over-protected child is caused by a state of acute anxiety, hypnotherapy may be effective as a means of eliminating this anxiety and with it the enuresis. But anxiety tends to recur in over-protecting environments (5), and enuresis may recur as well.

Finally, there is a very considerable group of patients whose enuresis, originated in an inadequate emotional balance in some period of the person's past, and persisting at the moment of consultation mainly as a habit, is aggravated by the secondary emotional disturbances caused by the symptom itself and the attitude of the environment towards it.

After having given due attention to these fundamentally important environmental factors (or rather, while we are still investigating and striving to correct these factors) we carry out the direct treatment of the patient.

Our psychotherapeutic procedure begins with an explanation about the causes of enuresis and its treatment, given in terms that can be understood at the patient's or his parents' level of age or culture.

We then try to "induce" the positive hypnotic emotional state in the patient by means of a direct procedure, described to the subject as a "muscular relaxation" (10), and to achieve the hypnotic depth that is best for the individual case (11). We never force the person to behave under the hypnotic state in a manner required by a preconceived technique, but tell him to enjoy this state as he prefers. Nor do we employ direct symptom-eliminating suggestions because, with the exception of some very special cases, these are ineffective (12) and may be harmful when they make the patient lose faith in his recovery.

The procedure of inducing the hypnotic state for psychotherapeutic purposes without giving direct suggestions has already been found efficacious by Liébeault (13), Binet and Féré (14), Wetterstrand (15), and others. Recently Conn (16) has applied it under the name of "hypnosynthesis."

We believe it to be a means for attaining a favorable emotional condition, with its corresponding effect on the complex interaction of the mesodiencephalic reticular system, the cerebral cortex and the thalamic-hypothalamic centers, and consequently on all the psychophysiological functioning of the individual (17).

On every possible occasion we try to increase the patient's self-esteem and to give him understandings on the points that interest him. The rationalizations which are comprehensible and adequate for the patient's individual case and emotional condition are an important resource for achieving a prolonged emotional stabilization.

The patient is very likely to ask about the course that may be expected in his recovery. We tell him that the process of recovery has many individual variants, and that he may either progress continuously or be alternately better or worse. Such oscillations need not alarm him because they are perfectly normal. It is often found that the symptoms which accompany enuresis, such as nail-biting or nightmares, are the first to disappear, this being a favorable sign. It may also happen that enuresis is the first symptom to be lost and that treatment must be continued for the patient's stuttering, conduct problems, etc.

At the beginning our psychotherapeutic interviews take place twice a week, then we pass to weekly interviews, then one every two weeks, and one per month, according to the course of the individual case. We do not fix the term of treatment, since, as Gilbert (18) rightly says, the patient must advance at his own pace along the road to recovery.

Some drugs, like ataraxics, vitamins, tonics, etc. or certain procedures such as the reduction of intake of liquid, as well as placebos, may be useful, mainly as a kind of rationalization to which the patient can attach his faith in his recovery. (Still, such rationalizations must be handled with care, because not uncommonly the patient or his parents decide to give the placebos credit for the initial improvement and not to come for further interviews, till they are surprised to find that the "wonderful" drug has inexplicably lost its efficacy.)

We never advise that the emotionally disturbed enuretic patient should be awakened at night, because our purpose is not merely to get the patient to keep his bed dry but to help him attain normality in his psychophysiological reactions. It is better to allow the patient to choose whether he prefers to get up to urinate during the night or to retain his urine till the morning. It is precisely the latter form of bladder control that is the more common one in normal people. When a child is wakened several times during the night, emotional tension is caused both in the patient and his family, and attention is directed to the symptom of enuresis.

We also avoid the use of drugs intended to reduce the depth of sleep, because we have found, as Leo Kanner (1) indicates, that most children are deep sleepers, without necessarily being enuretics for this reason, and there are enuretics whose sleep is very light. It is definitely undesirable to interfere with the rest that the patient needs for his physical and psychological health.

In the intervals of the psychotherapeutic sessions, the patient is asked to practice "relaxation" at home (if he is an adult with emotional disorder). In the case of children, it is most important that they be allowed to have playmates, because free play is a very important source of autohypnotic states, with the consequent emotional stabilization.

Parents and relatives are urged to do all they can to increase the self-respect of the enuretic patient, avoiding criticisms and praising any kind of progress.

It is not uncommon that enuresis should cease after very few sessions: two to four. We have found that these are cases in which enuresis was due to a state of anxiety caused by a block of the child's principal hypnotic relationships with its parents. As Ambrose (19) said, hypnotherapy "cuts across anxiety," thus bringing about the disappearance of the symptoms caused by it, enuresis included, as long as it has not yet become a habit.

The rule is that there should be some response to treatment after two to five sessions, this response being different in each case. Sometimes a diurnal and nocturnal enuresis may become only nocturnal, or more rarely only diurnal. The spots on the bed may become much smaller. The enuretic "accidents" may become less frequent, appearing once or twice a week instead of every night. The important thing is that there is a movement towards recovery.

The time required for a total cure is difficult to establish, since there are no general rules regarding it. There is often a critical improvement after five to ten sessions. Then a very special moment may be reached: the elimination of the emotional component in the etiology of the enuresis, leaving the disorder exclusively in the form of a

habit. At this moment it becomes necessary to modify the therapeutic tactics.

Such a situation may be recognized by the following facts: the disappearance of the symptoms that accompanied enuresis, the emotional tranquilization of the patient, recognized by him and revealed in his behavior in general, and often, though not always, a change in the type or frequency of the enuresis, which remains fixed after this.

At this level of treatment, we explain the situation very carefully to the patient or his parents, telling them that the enuresis is now a mere habit which must be eliminated like any other undesirable habit, and that it is fundamental for the patient to desire, and to be stimulated, to eliminate it. A habit cannot be lost immediately; this requires a certain length of time, which may be made shorter if the person receives emotional support by means of an interpersonal relationship and adequate rationalizations.

The most varied resources have been advocated for the treatment of enuresis. According to Campbell (20), these include over 500 drugs and at least 25 physical therapies, reflecting the fact that none of them can insure success. In his words: "Fortunately most enuretics recover in spite of their treatment. Success in the treatment of enuresis and the physician's faith in his treatment are mutually reciprocal." This heterogeneous multiplicity of more or less effective drugs and devices shows that they act in the manner of placebos, that is, by their psychological effect.

Therefore, the psychotherapy of enuresis may resort, in combination with the fundamental adequate interpersonal relationship, to various means which must be adapted to the situation, the understandings, convictions, and customs of the patient, etc., in order to be helpful for the elimination of both the emotional component of the latter's disorder and his undesirable habits.

On reviewing the literature on this subject, we find that the most dissimilar and even bizarre procedures have been employed, according to the ingenuity of the therapist. Some of these procedures were applicable only to a single case.

A typical example of these last procedures is the extremely original one Erickson (21) employed with a married couple of enuretics, from whom he extracted the promise that for two weeks they would kneel side by side on the bed and deliberately, intentionally, and jointly wet it before going to sleep. Fulfilling these embarrassing orders, they got rid of their enuresis.

A well-known aid to the treatment of enuretics consists in a restriction of liquid intake during the later afternoon and evening. Unsatisfied with the classical dry diet, Krasnogorsky (22) makes the patient eat some salty food, such as ham or fish preserved in salt, before going to sleep. This is intended to cause a retention of fluid in the body tissues and a decrease in diuresis.

Often we have patients who have already been put on a dry diet, even with the addition of salt, or with whom we ourselves have tried such a diet unsuccessfully while testing various forms of treatment. In such cases we can do nothing but change radically the indications. We immediately discontinue the restrictions, saying that the patient is to drink all the liquid he likes at any hour, because his problem is of a completely different nature, related for example to a lack of calcium, or vitamins, etc. This is declared to be the really important problem, which must be treated by taking, at regular intervals, certain pills or tonics. Thus we withdraw from the enuresis the attention of both the patient and his parents, centering it on something else.

This has given us very satisfactory and rapid results.

A change of environment may be most effective as a help to recover from enuresis without any medicines or drugs. This is well illustrated in the example, mentioned by Campbell (20), of the child who remains dry at a summer camp, where it develops new social interests and is removed from the environment that caused its bed-wetting.

A very original though complicated form of treatment was used by Koster (23), who in addition to a detailed regimen for eating and drinking, a strict schedule for various activities, and rigid bed-time hours, made the mother repeat with the child a memorized 15-minutes' dialogue, before the latter went to sleep, insisting on various suggestions on the subject of not wetting the bed. No emphasis was placed on tone and attitude.

We believe that the most valuable part of Koster's procedure is the fact that the mother talked with the child before it fell asleep. It seems to us that it matters very little what is said to the child, as long as it is said in a soft and tranquil tone, conveying tranquilizing emotional nuances, which can give an adequate tint of security, support, affection, etc., to the child's emotional state during sleep.

On the basis of this conviction, we center our plan of treatment of the enuresis habit on asking the mother, or any other relative who has an emotionally normal relationship with the patient, to speak to him very softly during one or two minutes, when the little one is in bed and about to go to sleep, making no reference whatever to the fact whether his bed will remain dry or not. (Speaking of a dry bed would expose us, in case of failure, to have the patient lose faith in himself.) In accordance with the age-level and interests of the child, something like the following can be said: . . . "he is warm and comfortable . . . he can be relaxed and very, very comfortable . . . has been good and has done something very well that day . . . he can have a nice sleep . . . knowing that mother loves him . . . everybody loves him . . . he can sleep well and calmly."

Many variants may be introduced, like the expression of tenderness by caressing the child or adjusting its blanket, the telling of a bedtime story that can give feelings of security, a laudatory comment on the child's behavior during the day, etc.

We have found this to be a most effective means for helping children to lose the enuresis habit.

The procedure of talking to the child with an adequate intonation and attitude, as described, is nothing else but the direct induction of the positive hypnotic emotional state (10, 24) or a means of intensifying the positive hypnotic emotional state that results from the relationship between a child and its parents (4).

The positive hypnotic emotional state thus induced or intensified (deepened) later passes into physiological sleep (17), which will hold the emotional nuances of affection, security, etc., conferred in the process of hypnotic induction.

This brings about an emotional stabilization in the patient, which favors a relaxation of the muscles and a regularization of visceral functions. No special suggestion is needed to achieve this effect, because it is related to phenomena that result from the nature of the hypnotic state itself (8, 11, 25).

It is a very normal part of psychotherapy to enlist the help of the patient's parents, relatives, or other people from his environment. The therapist's own action is only a drop in the sea of the everyday-life hypnotic relationships, which both cause and cure psychogenic disorders. A fundamental task of the psychotherapist consists precisely in manipulating these every-

day-life hypnotic relationships, helping the patient to find and maintain those that are beneficial and to free himeslf from those that prevent him from having a normal emotional balance.

One of the general principles of hypnotherapy (5) is for the therapist to make, directly or indirectly, a kind of "transmission of hypnotic contact" with the patient to people outside the consulting room, thus establishing everyday-life hypnotic contacts, which will collaborate in the patient's treatment.

Among some particularly interesting examples of direct transmission of hypnotic contact, we can mention: Bryant's (26) procedure of transferring a hypnotic contact in which suggestive therapy is employed for the treatment of alcoholics, cases of dyspareunia making impossible the consummation of a marriage which we treated successfully by transmitting the hypnotic contact to the husband (27), and situations in which the patient's relatives "prepared" him for painless dental work by inducing a hypnotic state in him with a subsequent "transmission" to the dentist (11).

But, for the purpose of psychotherapy, where an "emotional reorientation" (28) is required, this kind of cooperation can only be asked of people whose emotional relationships with the patient are normal. That is, if the patient is a child, these relationships must not determine in him an inadequate emotional balance by over-protection, relative insufficiency of stabilizing emotions, or excess of negative emotional nuances of oppression, irritation, etc. Even people who have the right emotional relationship with the patient had better not attempt the aforementioned procedure when they are emotionally disturbed. It is useless for them to try to simulate tranquility, since their emotional disturbance will be transmitted to the child in spite of all their efforts to hide it. The hypnotic state has among its attributes an extraverbal transmission of emotions between people who are in a principal hypnotic relationship (29, 30).

The following case may serve to illustrate the undesirable effects that may take place when the procedure of establishing a hypnotic contact with the patient before he goes to sleep is applied by an emotionally disturbed parent:

The nine-year-old girl, E. F., eldest child in her family, with three-and-a-half year old twin brothers (not enuretics), had been wetting her bed every night in her life.

At the age of six years, she had also presented facial tics. The mother related this period with the death of a grandmother whom the girl had dearly loved. Later, the other grandmother came to the house, and the child's tics disappeared soon, with no therapeutic action, leaving only the enuresis.

The first interviews led us to think that the relationships of the patient with her family (parents, grandmother and brothers) were normal. We diagnosed an enuresis that had lost its emotional origin some time ago, evidently when the tics had disappeared, having turned into a habit with a moderate emotional component. The patient herself revealed an intense desire to get rid of the disorder.

We explained to the mother what we understand by enuresis in the manner of a habit, and asked her to cooperate in our treatment plan. As a complement to our weekly hypnotic sessions, she was to speak in a soft and calm tone of voice to her daughter every night, when the latter was about to fall asleep. At the same time, we discontinued all the restrictions of liquids, diets, drugs, etc., that had been piled on the patient by other therapists.

After a week, the girl was brought to us with no improvement, but on the contrary, made worse by a tic of head and lips, more intense than the ones she had suffered at the age of six.

On further inquiry, we found out that the mother had been having for several years periods of tension and great irritability, and that she had had little contact with her children, who were in the grandmother's care, while she worked with her husband. She admitted having been very tense re-

cently, though she had done her very best to talk softly to her daughter at night, striving not to reveal her emotional condition.

We explained to the mother that her own irritability and tension was communicated to the child in spite of all the efforts she made to conceal it. The best she could do was to keep away from the patient as much as possible, leaving her with the grandmother, whom we would instruct in the procedure of speaking softly at the beside. Our interviews with the patient were to take place three times a week.

At the end of the first week, the tic had disappeared. We then continued with weekly interviews, and after one and a half months, the patient had completely recovered from her enuresis.

The procedure for the treatment of an enuresis habit that brings into focus the emotional condition of the patient and his family is radically opposed to certain techniques of a mechanical nature, making use, for example, of the well-known device in which the patient's urine closes a circuit and sounds an alarm, or of drugs that reduce the depth of sleep, of the administration of belladonna, etc. It is surprising that even today there are authors who recommend (31) a form of treatment that is based on the severe mistake of considering the patient as a bladder that does not restrict its functions as it should and not as a human being with emotions that exert an influence over the functions of his body.

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AUTOGENIC TRAINING

by Bernard E. Gorton, M.D.[1]

During the past fifty years a method of training in autohypnosis called *Autogenic Training* has been developed by the German psychiatrist J. H. Schultz and his collaborators. It is practically unknown in the United States, even among specialists in hypnosis. It is the purpose of this presentation to outline the history, method, and applications of Autogenic Training.

The standard text on the subject is the book *Das Autogene Training: Konzentrative Selbst-Entspannung* (1) by Schultz; this can be literally translated as *Autogenic Training: Self-Relaxation Through Concentration.* Schultz offers the following definition of Autogenic Training: "A method of rational physiologic exercises designed to produce a general psychobiologic reorganization (*Umschaltung*) in the subject which enables him to manifest all the phenomena otherwise obtainable through hypnosis." He compares Autogenic Training to a graduated series of mental exercises that can improve functioning and performance in normal people and help to control or remove maladaptive behavior, including neurotic and psychosomatic symptoms. Autogenic training was not originally intended to be a method of therapy but has found many clinical applications. Its general purpose is to develop by means of a prescribed series of exercises the ability to achieve inner relaxation, to produce psychophysiologic changes, and to improve the capacity for introspection and insight, leading to increased self-direction of the organism with a strengthening of healthy biologic potentials and a reduction or elimination of malfunction or disease.

The practice of Autogenic Training can lead to the following accomplishments:

1. The ability to rest and to restore energy at will.

2. The capacity to relax, not through an effort of "will power" but through the dissolution of inner psychophysiologic tension.

3. The control of bodily processes that are ordinarily autonomous, such as circulation or respiration.

4. An increased capacity for voluntary physical and mental performance.

5. The ability to reduce or abolish discomfort and pain.

6. Increased self-control by concentrating, while in the autogenic trance, on ideas expressed as formulas (e.g., "Order is freedom"); these can subsequently realize themselves like ordinary post-hypnotic suggestions.

7. Heightened insight, self-critical ability, and self-determination attained through introspection while in the autogenic trance, leading toward the goal of optimal self-realization.

HISTORICAL BACKGROUND

Oscar Vogt first pointed out that intelligent and motivated subjects can improve their ability for psychologic insight while in an autohypnotic trance. Vogt induced a food intolerance as an artificial neurosis in a hypnotic subject; in a later trance induced through autohypnosis the subject was able to develop insight into the previously unconscious mechanisms involved and to rid himself of the artificial food intolerance once he under-

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The help of Wolfgang Luthe, M.D., in making available a bibliography of the world literature on Autogenic Training and other unpublished material is gratefully acknowledged.

stood the situation. He found that individuals able to induce self-hypnosis could relax themselves very effectively and could recuperate from various environmental and emotional stresses, thereby blocking the formation of reactive symptoms. Vogt's concept of "prophylactic rest periods in autohypnosis" was developed from these observations (4).

In 1920 Schultz asked hypnotic subjects to report on their experience while entering the trance state (5). Intelligent, critical subjects were told to observe themselves as objectively as possible during and after the induction of hypnosis. Care was taken to avoid direct questioning and any hetero-suggestive distortion of the subjects' experience. Certain types of psychic functioning were found to be characteristic for different trance levels:

1. A First Level, in which various kinds of visual experience occur.

2. A Second Level of spontaneous imagery, in which thoughts appear as pictures in a visual field but retain a subjective character.

3. A Third Level, characterized by vivid three-dimensional hallucinations and various distortions of the body image; post-hypnotic amnesia is not necessarily present.

Analyzing the protocols of his subjects further, Schultz found that invariably definite bodily sensations were reported as an integral part of the trance experience. There was almost universally an abnormally *heavy* sensation of the body and a peculiar feeling of *radiating warmth* like that experienced following the injection of morphine or Pantopon or physical therapy involving heat. After reviewing the older literature Schultz concluded that there was evidence for a "specific suggestive alteration of somato-psychic functioning" (*Umstellung*) occurring during the process of hypnosis. Autogenic Training was developed to enable an individual himself to produce these specific manifestations of altered somatopsychic functioning manifested spontaneously during and after the induction of hetero-hypnosis.

THE CONCEPT OF SOMATOPSYCHIC REORGANIZATION (UMSCHALTUNG)

In analyzing the components of the spontaneous somatopsychic alteration associated with the induction of hypnosis, Schultz correlates the sensation of *heaviness* with muscular relaxation. He postulates that this relaxation, rather than being a suggested side effect, is an integral part of the organismic reorganization that occurs with the induction of the hypnotic state. He therefore reasons that systematic training in self-relaxation is bound to produce a similar condition. By comparing the experience of falling asleep to the induction of hypnosis and autohypnosis he formulates the "*paradox of self-induced passivity*"—in each instance one has to learn to abandon oneself to an on-going organismic process. If one tries to "will" sleep he remains awake. A similar situation occurs in the psychosomatic reorganization that takes place during the induction of hypnoidal states.

Schultz considers the following factors to be necessary if the psychobiologic reorganization that occurs spontaneously in hypnosis is to be achieved through Autogenic Training:

1. The subject must be motivated and cooperative.

2. He must possess a certain amount of self-direction and self-control.

3. A certain bodily posture is essential.

4. External stimuli are reduced to a minimum, and there is a mental focusing on endopsychic processes with exclusion of the external environment.

5. There is a monotonous input into the various sensory receptors.

6. An inward focusing of consciousness is facilitated by concentrating attention on the somatic processes. This is a primal type of experience, in which a de-cathecting of external events is achieved by concentrating on bodily feelings. This leads to a vegetative-passive level of functioning, which merges into a state of concentrative meditation or focused contemplation.

7. Under these conditions an overpowering, reflex-like psychic reorganization takes place.

8. Dissociative and autonomous mental mechanisms can then occur which lead to alterations of ego functioning and a dissolution of ego boundaries. The inner experiential and conceptual life assumes a plasticity of imagery, and a dream-like state of consciousness is established.

This can be recapitulated as follows:

"In a motivated, cooperating subject who has some measure of autonomous control, a diminution of external stimuli, the assumption of a suitable bodily posture, and a monotonous sensory input aided by attention to somatic processes, leads to a focusing of concentration or narrowing of consciousness which makes possible dissociative and automatic phenomena with an alteration of organismic and endopsychic functioning."

Schultz (6) uses this formulation for the conceptualization of hypnosis, hypnoidal states, hypnagogic states preceding physiologic sleep, and conditions of fatigue. This bio-psychologic reorganization (*Umschaltung*) is a universal phenomenon, a primitive, archaic level of psychic functioning of a regressive character; it is seen to be a *normal phenomenon* when the analogy to the alteration of consciousness involving falling asleep is taken into account. Sleep is not a "loss of consciousness," as witnessed by the well-known phenomenon of waking at a predetermined time (*Kopfuhr*), the ability of the sleeper to attend selectively to certain stimuli (mother awakening at the whimper of her child), the adaptive behavior of the sleeper (riddance of disturbing stimuli without awakening), and the continuity of dream experiences. Hypnosis, insofar as it involves this *Umschaltung,* is therefore not merely a transactional process between operator and subject, no matter what the role of suggestion may be in the *induction process.* This *Umschaltung* may be triggered by suggestion, but from the above standpoint it is basically an entirely normal psychobiologic phenomenon. Just as any normal person can fall asleep, any normal individual can undergo this psychobiologic reorganization and can thus be hypnotized under the appropriate conditions. The same applies to Autogenic Training. Extensive experience with normal subjects has shown that this *Umschaltung* is a normal phenomenon that can be induced with proper training. The basic element involved may be formulated as: "A decrease in biologic tonus or waking consciousness." Problems of suggestion are secondary to this basic process.

The term suggestion is therefore completely avoided in the following presentation of Autogenic Training; that is why the procedure is called Concentrative Self-Relaxation. The purpose of Autogenic Training is to teach the subject to attain the basic *Umschaltung* or psycho-biologic reorganization himself through the mechanisms outlined above. The careful, conscientious, persistent cooperation of an autonomous subject is a basic prerequisite. This eliminates the severe neurotic, the psychotic, or others who are seriously disturbed emotionally. The better the emotional health of the subject, the better the Autogenic Training and its result.

THE BASIC COURSE OF TRAINING

The data on which this description is based were gathered by Schultz over many years of giving courses in Autogenic Training to several thousand physicians and university students. The subjects were responsible and self-reliant individuals. Dilettantes and those not seriously motivated were eliminated by announcing at the beginning of each course that this was a course of training, a kind of psychic gymnastics, and in no way a therapeutic procedure. Most of the subjects who form the basis for this account were professional men and women and other individuals sincerely interested in improving their life performance. Each class included no more than 70 participants. Group practice is valuable in facilitating the training process.

THE POSTURE. The subject leans back in an armchair with his hands on his thighs, or he slumps forward on a straight-backed chair. One can also practice lying flat on his back. The correct posture is important in the establishment of a passive-relaxed state. The room should be quiet, with an even temperature.

EYE CLOSURE. The eyes are closed to eliminate visual stimuli.

THE MOOD OF QUIESCENCE (RUHETOENUNG). When the subject has assumed the proper position and closed his eyes he is asked to conceptualize the formula: "I AM QUITE STILL." The experience of quiescence is a goal of all the basic exercises; hence each individual exercise begins with the establishment of the mood of quiescence.

Subjects either "see" or "hear" the words of the formula when requested to conceptualize, think, or imagine them, depending on whether they are the "acoustic" or the "optic" type. Each individual should be permitted to develop his own mode of functioning, and a report obtained later about his own spontaneous experience (cf. fractionation method of hypnosis).

As the trainee repeatedly conceptualizes the formula, "I AM QUITE STILL," he undergoes an experiential sequence of development that is highly characteristic for the Training. At first the words are "thought" with some ego-distance and little ego-involvement as a "word," "thought," or "meaning." With repeated practice the formula gains increasingly in experiential reality and becomes charged with subjective meaning. Gradually the passively-productive state invests the words of the formula with feeling tone and psychic reality. This cathexis of affective coloring and subjective meanings leads to an altered ego state. The "external" words of the formula have become introjected and fused into a meaningful subjective experience. This is the prototype of the entire training process: an "external" conceptualization develops into a living inner experience.

THE EXPERIENCE OF HEAVINESS. Once the subject is able to attain the mood of quiescence, he is given the formula: "THE RIGHT (LEFT) ARM IS VERY HEAVY," using his dominant upper extremity. He is told that no mechanical movement is desired, only a "thought," a "mental concentration," or "conceptual formulation." The successful accomplishment of the experience of heaviness can be tested objectively by palpating the muscles. Members of the training group can be asked to compare the left and right arms of a subject who is doing the exercise successfully (cf. similar testing for limp relaxation during hypnotic induction).

The experience of heaviness illustrates the principle of *ideomotor activity* as a basic factor in the concentrative learning process. This is based on the tendency of an idea to realize itself and has been demonstrated by electro-

myographic currents that were recorded when motor acts were "imagined." Allers and Scheminsky (7) were able to determine by electromyography alone whether a subject "thought" of a hand, leg, or voice motion. The intensity of the electrical current produced was proportional to the intensity with which the subject was able to conceptualize the activity involved as an experiential reality. This principle is important and fundamental to the process of Autogenic Training.

Stroking of the subject's arm by the training supervisor can help some individuals to experience the heaviness better; external stimuli aid in the concentrated focusing of attention on the arm involved. This helps to explain the role of passes in hypnosis.

The tone of one muscle group has a definite influence on the tone of other muscle groups neurophysiologically. This produces the phenomenon of *generalization,* in which the experience of heaviness manifests itself spontaneously and without conscious effort in the other arm and later in the lower extremities and the trunk. Eighty per cent of subjects spontaneously generalize the experience of heaviness first to the opposite upper extremity. With additional practice further spontaneous generalization occurs, and the entire organismic state is influenced by the relaxation of the peripheral somatic musculature. This effect of *reciprocal linkage* between the peripheral and central nervous system has been extensively studied (8). The somnifacient effect of muscular relaxation is well known, as well as the abolition of deep tendon reflexes in sleep, and the use of a warm bath (vasodilation) to promote muscular relaxation. This detailed discussion has been included to show that seemingly so simple a procedure as the experience of heaviness contains manifold physiologic and biologic implications.

The heaviness experience gives positive results on first trial in sixty percent of subjects. There are often spontaneous dysesthesias and sensory manifestations. A gross change in arm volume can sometimes be observed. It is not unusual to find that a ring cannot be removed from a finger of the hand of the experimental arm shortly after completion of the exercise. Even on the first trial subjects spontaneously report that they feel sleepy, dizzy, mildly detached from the environment, or depersonalized. The involved arm often feels "strange."

Regardless of whether the phenomenon of heaviness is felt or not, the initial exercise is concluded after 20 or 30 seconds with this

TERMINATION. 1. The experimental arm is flexed and extended several times in quick succession. 2. The subject breathes deeply. 3. He opens his eyes. Termination often causes a variety of spontaneous sensations such as a feeling of being refreshed and the disappearance of previously present dysesthesias. Just as posture, concentration, mental set, and "proceeding by formula" are essential to successful training, so is it necessary to be very careful during the first few months to see that termination is carefully and conscientiously carried out without fail in every instance. If this is not done, a persistence of peculiar feelings of heaviness, strangeness, and dysesthesia in the involved arm can easily result. Schultz (9) has described impairment of well-being and performance lasting for days or weeks following failure to terminate hypnotic states adequately.

Even though a feeling of warmth has appeared spontaneously during the preceding exercises of heaviness, the warmth experience must nonetheless be practiced systematically. This follows from the principle that the entire purpose of Autogenic Training con-

sists in *a stepwise mastery of functional bodily control.* The establishment of an initially localized, but later increasingly generalized, experience of bodily warmth helps to promote a sleep-like state. Experimental studies by Schultz and his co-workers (10) have demonstrated rises of over 1° C. in skin temperature of the extremity involved in the practice of the warmth experience. Although the experience of heaviness always requires formal termination, the feeling of warmth may be permitted to subside spontaneously.

At this stage of training subjects give many descriptions of their spontaneous experience that show how, with increasing practice and automatization of the *Umschaltung,* there occurs a change in their general experience during the training periods. A *passively relaxed state* develops similar to that experienced while falling asleep. Changes in body image, phantom limbs, feelings of dissolution, dissociation, or floating, and an intensification of the inner experiential life are reported. The similarity to hypnotic phenomena is apparent. There is a loss of spatial orientation with alteration of ego boundaries, and an abandonment of the self to vivid endopsychic experiences.

THE COMPLETION OF THE TYPICAL COURSE OF TRAINING

When the trainee is able to induce, in fractions of a second, a feeling of heaviness and warmth that is subjectively and objectively well generalized, he has mastered the basic and essential *self-reorganization* (*Selbstumschaltung*). This is contingent on careful preliminary practice of the basic *Umschaltung* followed by conscientious repetition of the exercises.

QUIETING THE HEART ACTION. If the training is considered in its dual aspects —a reorganization of somatic functioning learned through practice, with the resulting changes in somatic function influencing the total organism in feedback fashion—control of the heart action is a logical objective once mastery over the skeletal muscle and vasomotor apparatus has been gained.

The influence of the emotions on cardiac action and the slowing and regularizing effect of hypnosis on the heart are well known. The technical error committed in many hypnotic experiments, in which subjects are told to "vary your pulse" without any preliminaries, must be avoided. In order to give the trainee an opportunity to gain a meaningful appreciation of his heartbeat, his hand is placed over the precordium so that he can become quietly aware of the beating of his heart. Only when this has become a meaningful experience integrated into the passive-concentrated state is the formula "MY HEART BEATS QUIETLY AND STRONGLY" conceptualized. There is no aim to slow heart action, except in the event of tachycardia or extrasystole, but only to intensify the state of quiescence. The independent regulation and quieting of heart action is a further factor contributing to the goal of concentrated self-relaxation.

RESPIRATION. The profound effects on the organism of respiratory alteration, whether apnea or hyperventilation, are amply documented (11). The formula "MY BREATHING IS QUIET" is used to achieve a spontaneous regulation and intensification of respiration. Integration of the respiratory function into the self-transformation contributes a rhythmic component to the experience; spontaneously, breathing becomes more diaphragmatic and deeper, as in natural sleep.

THE ABDOMEN. The aimed-for organismic reorganization has been derived from experiences with hypnosis, the soothing warm bath, night-time sleep, and general factors conducive to relaxation. It is also desirable to enable the subject to feel his abdomen suf-

fused by an intense sensation of streaming warmth. The formula "SOLAR PLEXUS WARM" or "FLOWING WARMTH" is used. Perfection of this experience, like that of the cardiac and respiratory regulation, usually requires two weeks.

COOLING THE FOREHEAD. To complete the basic series of exercises one further modification is added, derived from the analogy with the warm relaxing bath. The technic up to this point brings about the feeling of a heavy, warm body with quiet pulse and breathing and a feeling of streaming warmth in the abdomen, reposing in complete relaxation. The head, often considered the locus of the ego, is now demarcated from this general experience by means of the formulation: "FOREHEAD SLIGHTLY COOL." Perceptive subjects describe the resulting feeling as being like a cool breeze bathing the forehead, a sensation as though the heavy, warm body lies "far below" while the cool head "floats above." This concludes the presentation of the basic training technic.

Adequate mastery of the basic technic takes 12 to 18 weeks on the average. Only after three or four months is the autogenic *Umschaltung* sufficiently automatized to permit considerable accomplishments. Then it is often possible to calm oneself at will, fall asleep, or regulate the heart beat after only three or four practice periods. For sustained and accomplished performance faithful, regular practice is a prerequisite.

Once the average subject has mastered the basic technic in two to three months he is ready to undertake the following procedures:

RELAXING AT WILL (SELBSTRUHIGSTELLUNG). This deserves first mention among the attainments possible after the basic technic has been acquired. It is of considerable practical benefit to be able to calm oneself and to dampen the influence of disturbing emotions. To individuals whose profession occasionally demands performance before hostile or critical audiences this can prove exceedingly valuable. If emotional upsets or tensions arise in the course of everyday life. It is possible to enter *partial relaxation.* This *recuperative or refreshing effect* is often noted by subjects during the course of training and can be applied in many situations. One can arouse oneself at will after a predetermined period in the concentrative relaxed state (*Kopfuhr*). Obviously, autogenic prophylaxis cannot contravene the bounds of definite constitutional or biologic laws.

CATALEPSY. This is induced with the formula "THE ARM IS VERY STIFF" or its equivalent. The subject is often completely unaware of the resulting remarkably strong muscular contractions. Thus Autogenic Training not only facilitates rest and relaxation, but makes possible *dynamic effort* and the *mobilization of active energy* when necessary.

SENSORY ALTERATIONS. Just as in hypnosis, it is possible to increase or decrease the receptivity to external or internal stimuli through Autogenic Training. The induction of anesthesias is accomplished by stepwise conceptualizing coolness and later hyposensitivity. On the initial trial with 1500 trained normal subjects, 50 percent were able to achieve some reduction in painful sensation to pin prick. In 15 percent testing with pin prick resulted in grossly noticeable *differences in vasomotor reaction* of the skin of the anesthetized as compared to the control area. Similar phenomena have been observed in hypnotic anesthesia. This means that, with sufficient application, it is possible for any normal individual to learn to obtund painful or disturbing experiences, even causing them to disappear, provided he is not dealing with continuous very severe

pain. Well trained subjects can block out extremely painful stimuli, such as the insertion of three large dental fillings. The concept that pain consists primarily of an emotional fear helps to explain these results.

Contrariwise, one can *heighten sensory experience* in a manner analogous to the hypnotic *intensification of sensation.* The trained subject can thus experience extraordinarily completely a given sensory event while in the autogenic concentrated mental state. Schultz cites the case of an art critic who was able to improve his professional performance significantly in this manner through an "intensification of experience" (12).

VASOMOTOR REGULATION. Clinical observations and the fact that the induced experience of warmth can be associated with objectively measurable changes in skin temperature of 1° C. (10) warrant the conclusion that autogenic training allows some control over the vasomotor apparatus above and beyond the secondary effects of emotional damping. With the achievement of a reliable and positive warmth experience the character of the *Ruhetönung* becomes thoroughgoing and lasting. Well trained individuals are easily able to "warm" cold feet at will, and Schultz mentions a German prisoner of war in Russia who was able to avoid frostbite through the use of autogenic training (13).

FACILITATION OF MEMORY. Much work has been done on hypermnesia in hypnosis. The findings with autogenic training are not so much those of extraordinary feats of memory as a facilitation of recall. This can be demonstrated by having subjects attempt to remember a long-forgotten poem, name, or telephone number while awake. In an average of 60 percent of subjects the memory block can be removed in a subsequently induced autogenic trance. This is of great use in everyday affairs when many details have to be retained and reproduced.

IMPLEMENTING RESOLUTIONS EXPRESSED BY FORMULA (DIE FORMELHAFTE VORSATZBILDUNG). The phenomenon of posthypnotic suggestion is well known. In the autogenic trance the efficacy of implementing resolutions expressed by formula is best demonstrated by having subjects carry out *awakening at a predetermined time.* (*Terminerwachen*). It is important that the conscious portion of the personality with its critical-rational faculties be excluded from this process. It is essential to mobilize intuitive-instinctive reaction patterns. Certain subjects are able to bring about behavioral changes in this way that they can not accomplish through "will power" or conscious determination in the waking state.

INTROSPECTION. Just as hypnosis can facilitate insights into the depths of the personality, so does Autogenic Training provide access to the dynamics of the unconscious in the relaxed state of concentration.

NIRVANA THERAPY. With certain individuals it is possible at the basic level of training to initiate the induction of a euphoric state of exaltation. This is only indicated in persons who find themselves in totally impossible external or internal life situations. It is the exact opposite of insight therapy, a palliative measure like the administration of morphine to a terminal cancer case. This therapeutic approach should be restricted to cases who are suffering hopelessly and have no other means of being helped.

TECHNIC AND ATTAINMENTS OF THE ADVANCED LEVEL OF TRAINING

The mastery of the advanced technic presupposes a complete, adequate, certain and prompt command of the basic technics. The subject must be capable of bringing about the specific *Umschaltung* in a moment, through the briefest

act of inner concentration, so that the body is experienced as a heavy, warm, reposing mass suffused by a regular pulse and a quietly flowing breath. This state is so peculiar and characteristic that frequently trainees who have never had any personal contact will describe it in identical terms. Essentially they attempt to express the idea that the cool head somehow "floats above" the formless, warm body. The facial expression of these subjects is calm as in deep sleep, there is complete relaxation of all skeletal muscles, the body skin is warm and the forehead noticeably cool.

A first step in the advanced technic is the *voluntary rotation of the eyeballs upward and inward*—"looking at the center of the forehead." This maneuver is an ancient tradition of hypnotic and meditative practice. It frequently triggers a sudden, overpowering intensification of the autogenic *Umschaltung,* and a definite facilitation and intensification of accomplishment of the training is brought about. Good subjects are capable of remarkable feats by means of this convergence-reinforcement. Anesthesia for a third degree burn produced by a lighted cigarette placed on the back of the hand for one and one half minutes can be obtained.

If an *intensification of psychic experience* is desired, the following series of procedures is employed:

To develop the subject's ability to *experience endopsychic phenomena visually* he is encouraged to discover his "personal color" by asking him to visualize any color he likes. The ability to conceptualize different colors at will is then developed systematically. As control over endopsychically visualized colors is gained there is usually an intensification of the experiential reality of these inner visual experiences. The trainee's ability to control his color experiences adequately may be tested by disrupting them through variations in environmental illumination or the introduction of disturbing sounds. The task of visualizing various objects is taken up next. This involves the recapitulation of the visual experiences that occur during heterohypnosis. Attempt is made to visualize abstract subjects, and this often produces material reminiscent of automatic drawing or abstract art. Such material can be used psychotherapeutically and analyzed like dreams or fantasies. Well integrated subjects can often work through unconscious conflicts, achieve extensive emotional catharsis, and gain valuable personality insights at this stage. Frequently they are unaware that what they report spontaneously represents well-known psychodynamic mechanisms.

The subject may then be asked to "see" *a picture expressive of his basic emotional needs.* Static or dynamic hallucinations of complete subjective reality may then be experienced, dealing with archaic psychic motifs and mythologic material, and these are sometimes felt to be ego-alien and threatening.

The subject may then be asked to hallucinate the image of a certain person and to absorb himself fully in this experience. As in dreams, it is easier to hallucinate persons towards whom one is indifferent than those for whom one has positive feelings. Careful analysis and examination of one's feelings towards the individual in question is possible in the autogenic trance. "Questioning the unconscious" can be carried out by the subject or by the training supervisor and the resulting inner experiences noted. This exercise leads to the expression and representation of innermost personality experiences and attitudes; serious psychotherapeutic work is thereby made possible. These inner experiences of extraordinary subjective reality can lead to the *analysis of complexes, nuclear personal experiences,* and to the con-

sideration of *questions of fundamental existential value.*

Finally, the subject may be led to develop a *personal formula of self-understanding* to help him achieve the *goal of self-actualization.* This phase of training deals with extremely subtle, sensitive, and affectively charged psychic material. Only a great deal of caution, judgment and empathy towards the subject, as well as psychiatric training on the part of the supervisor, allow for its successful completion.

APPLICATIONS OF AUTOGENIC TRAINING

In addition to the applications already mentioned, Autogenic Training has been widely used in Europe for the treatment of the psychophysiologic or psychosomatic disorders, such as bronchial asthma, cardiospasm, hyperventilation syndrome, functional gastro-intestinal disturbances, and many others. It has been found to be valuable in the treatment of psychoneurotic disturbances, particularly those involving alterations in the action of the autonomic nervous system. In the European literature there has been an increasing rate of publication dealing with clinical applications of Autogenic Training during recent years (14), and Schultz's textbook contains extensive accounts of findings in a large variety of clinical material.

It has been reported that following Autogenic Training an increase of the organism's overall capacity for functional adaptation occurs, with an enhanced ability to resist all sorts of stresses. Unconscious material becomes more readily accessible in the course of Autogenic Training. One advantage as compared with traditional methods of psychotherapy is that relatively little time is required on the part of the patient, who may carry out therapy by performing the exercises for a total of 10 or 20 minutes daily. However, periodic control sessions by the medically trained supervisor are essential. The possibility of initiating training on a group basis is a further advantage. The method has been said to be theoretically applicable to 80 percent of adults of all ages (15).

There is an increasingly large body of experimental physiological data in the European literature dealing with the results of Autogenic Training, which it is beyond the scope of this paper to review. Reductions of the patellar deep tendon reflex, changes in motor chronaxie, alterations in electromyographic potentials, skin and rectal temperature changes, electroencephalographic, circulatory, and respiratory alterations have been described in association with Autogenic Training (14).

A gradual process of multidimensional optimalization of the organism may develop, as reflected by psychodynamic and physiologic changes which can be verified by physiologic measurements and projective psychological tests (15).

SUMMARY

Autogenic Training has been described as a method enabling the trained individual to reproduce at will the phenomena otherwise obtainable only through hetero-hypnosis. This, according to J. H. Schultz, the originator of the method, shows that the phenomena of hypnosis are not the product of hetero-suggestion, but result from a basic psychobiologic reorganization or alteration (*Umschaltung*) which a trained subject can learn to achieve independently through Autogenic Training. There can be produced physiologic and psychodynamic changes in the individual which lead to an optimalization of psychobiologic functioning. Precisely how this occurs is not entirely clear in the present state of knowledge. There exists a large and increasing literature on the

clinical and experimental applications of Autogenic Training in Europe which suggests that we are here dealing with a new dimension in psychophysiologic therapy that deserves wider study and evaluation.

REFERENCES

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2. ————. Autogenous training, in *Process in Psychotherapy.* New York, Grune and Stratton, 1957. Pp. 173-176.
3. ————. Das autogene Training, in *Handbuch der Neurosenlehre und Psychotherapie,* ed. by V. E. Frankl, V. E. von Gebsattel, and J. H. Schultz, Vol. 4. Munich, Urban und Schwartzenberg, 1957. Pp. 153-210.
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11. Ref. 1, p. 77.
12. Ref. 1, p. 98.
13. Ref. 1, p. 100.
14. Luthe, W. Bibliography of Autogenic Training, unpublished.
15. ————. Autogenic Training: a psychophysiological approach in psychotherapy, unpublished.

L. Chertok. *Les Méthodes Psychosomatiques d'Accouchement Sans Douleur. Histoire, Théorie, Pratique.* [Psychosomatic Methods of Painless Deliveries. History, Theory, Practice.] Preface by Professor M. Lacomme. Second edition. Paris: l'Expansion Scientifique Française, 1958. xiii + 348 pp. 582 references. Author and subject indices. Paper bound. 2,200 francs.

By André M. Weitzenhoffer, Ph.D.

This is unquestionably one of the most important and best works yet published on the uses in childbirth of psychological methods for the production of analgesia. It ranks as a definitive work on the subject matter. It is a scholarly work which, as its subtitle indicates, covers the history, theories and applied aspects of the subject matter. The author's main concern is to present a comprehensive and objective survey of existing methods, comparing and evaluating these as he goes along. It is a well documented work which covers such methods as Dick-Read's natural childbirth. Velvovski's psychoprophylactic method, Schultz's autogenic training, Jacobson's progressive relaxation, various combinations of these methods, and finally, the hypno-suggestive methods which have been evolved from the early days of hypnotism to the present. One of the most valuable features of the book is its extensive coverage of the Russian contributions in this area. The use of psychological analgesia in the U.S.S.R. has been extensive and remarkably successful. In spite of this, largely due to language barriers, little of the pertinent Russian literature has been available to American readers, a defect now remedied by Dr. Chertok.

Although this work is ostensibly concerned with analgesia in childbirth, its importance is much broader, dealing as it does with the more general topic of the nature of pain, its prevention, and its alleviation.

The first quarter of the book is devoted to the historical antecedents of modern psychological methods of inducing analgesia. It is not only concerned with their applications to obstetrics, but equally so with their general uses in surgery. The main topic here is the hypno-suggestive techniques for inducing analgesia. An excellent review of Russian contributions in this area since 1923 will be found in this portion of the work.

Just about half of the book is devoted to a discussion of the methods of Dick-Read and of Velvoski, with the main emphasis upon the latter. As a matter of fact, this reviewer found the presentation of Dick-Read's method a little too brief. Considering that Dick-Read's method has been readily available to all interested readers whereas the Russian contributions have not, their more extensive presentation by the author more than makes up for the above defect, if it can be called one.

In the remainder of the work the author considers various questions which arise throughout various portions of the book. Here he attempts to bring together the various viewpoints and facts presented in earlier sections, and to derive certain conclusions, developing more or less his own theoretical views.

Chertok sees pain as being largely of central origin and as a special aspect of consciousness or attention. The experimental foundations and the rationale for psychological methods of analgesia are to be found in the well-established facts of hypnotic analgesia. Although the element of suggestion is probably to be found in varying degrees among all of the psychological methods employed to produce analgesia, hypnosis is not necessarily an element in all of them. In fact, probably more than one mechanism for blocking pain is involved in the various methods, and one is dealing here primarily with qualitative changes along multiple dimensions. Unfortunately, while psychological analgesia is a demonstrated fact, its psychological and physiological mechanisms are poorly understood.

In the case of labor pains affective elements play an important role. Anxiety[1] is a main source of pain and acts at two levels: at the physiological level it is responsible for local somatic effects; at the experimental level it functions by intensifying the perception of pain and even creates pain. Psychological analgesia not only operates by acting upon anxiety, but also by acting upon all pains independent of anxiety. Psychophysiologically speaking, analgesia obtained by means of psychological methods consists in a "blocking" or central modification of pain perception through the intervention of affective factors.

The author emphasizes that psychological methods are not limited to the elimination of algesiogenic processes, but they can also remove or modify all painful perceptions. He also makes a basic distinction between methods aiming at preventing future pain

[1] He considers two kinds of anxieties, one which is somatogenic, and one which is psychogenic.

from occurring (prophylaxis) and alleviating existing pain (therapy). Analgesia obtained through hypnosuggestive methods is usually therapeutic in nature.

Psychological methods of handling labor pains fall largely within two groups: Hypno-suggestive methods and "waking" (non-hypnotic) methods. The element of suggestion is dominant in the former, but is also present in the latter. In the former, the mode of action resides essentially within the hypnotic suggestions given to the patient. In the latter there are three agents contributing to the over-all analgesia: a didactic element, a physiotherapeutic element, and a psychotherapeutic element.

The didactic element consists in the education of the prospective mother with regard to child bearing and childbirth. It acts primarily by removing the fear of the unknown. It also promotes personality growth and facilitates the establishment of a positive relationship between the patient, the physician, and such others as will attend the patient.

The physiotherapeutic element must be broken down into, on the one hand, gymnastics (ante-natal exercises), and on the other hand respiratory and relaxation exercises. It is Chertok's belief that gymnastics have no specific analgesic action but are nevertheless beneficial through their contribution to healthier muscle tonus. He does, however, report data which would seem to indicate that in some fashion these exercises are correlated with a less painful delivery for undetermined reasons. Respiratory and relaxation exercises, on the other hand, are seen as having definite analgesic effects each through several possible modes of action. In particular, relaxation exercises can lead the patient in some instances into a hypnoidal and even a hypnotic state, and thence through these to hypnotic analgesia. Such an action is strictly incidental, as the relaxation exercises do not specifically aim to bring hypnosis about.

The psychotherapeutic element represents the level of interpersonal relation at which suggestions are effective. Transference appears to be an important factor here.

The methods of Dick-Read and of Velvovski are representative of the non-hypnotic methods. They are essentially alike in procedures, but they differ considerably with regard to origin and theory. There are also certain methodological differences, but these are probably of minor importance. According to Chertok, both techniques originated in the faulty assumption that "natural childbirth" is without pain, but the Russian method has a more scientific foundation, being also based upon hypnotic analgesia as the prototype of psychological analgesia. Although it has been argued that Dick-Read's method is not as well physiologically grounded as Velvovski's, it is the author's opinion that neither are really well grounded in so far as physiology is concerned.

Chertok also briefly takes up two other questions. What should be the role of the husband in childbearing, and is there a psychological need for some pain during labor? For the most part the author gives no clues to his own feelings with regard to these matters, but does summarize nicely the rather scant material available on these questions. He does suggest the intriguing possibility that in some instances anxiety might promote analgesia.

The book as a whole gives a very convincing picture of the value and feasibility of using psychological methods for producing analgesia in childbirth. The large scale successful Russian experience with these methods is well worth noting. It is clear that absolutely painless labor is not a usual occurrence and that not all women will benefit from the methods to the same degree. But the figures are very encouraging. One Canadian report is quoted as reporting only about 8 per cent and 7.2 per cent failures in 2000 cases, for primiparas and multiparas respectively. In the case of multiparas, 46.5 per cent of the patients are reported as having had excellent results. Another report from France based on 4,847 cases claims to have only had 4.76 per cent failures, but only 18.43 per cent of the patients are said to have had excellent results.

For the most part any criticisms of the work must be considered as minor. It is this reviewer's feeling that it falls somewhat short as a textbook from which to learn specific techniques. The Russian psychoprophylactic method is the only one given in sufficient details to allow the reader to make use of it without additional reading. Schultz's method is inadequately described. In all fairness to the author it must be recognized that he may not have intended his work to serve as a teaching manual. The Dick-Read method and the hypno-suggestive methods have been fairly extensively described in a number of places. For this reason he may have felt justified in limiting himself to his excellent description of the Russian method, which has been the least available. Similarly, with respect to Schultz's autogenic training, one should keep in mind that Dr. Chertok as a French physician writing for a French

audience may have felt entirely justified in not giving a better description of it as it is this reviewer's impression that Schultz's work is more widely known in France than it is in the United States.

The discussion of the nature of pain and psychological analgesia seems somewhat superficial. Admittedly the work is not one on pain *per se*, and perhaps one ought not to expect too much along this line. On the other hand reference to some of the classical studies of hypnotic analgesia other than the one of Hardy et al. mentioned in the text would have been in order.

In a number of places the author alludes to the psycho-social implications of psychological analgesia but never makes the former explicit. This writer, for one, would be curious to know just what Dr. Chertok had in mind here.

It would also have been helpful if the author had brought together in some sort of summary tables the various statistical facts he quotes throughout the text. Short of making one's own tabulation as one reads it is difficult to get a comprehensive picture of the number of cases which are now known to have been treated or of the degrees of success obtained in various instances. Also a few more details might have been useful in connection with some of the figures reported in the book. For instance, at first sight there appears to be considerable disagreement between the number of cases reported to have had varying degrees of analgesia in the Canadian and French reports mentioned earlier. This discrepancy may be more apparent than real because actually the French distribution is practically identical with the Canadian distribution reported for primiparas. Thus if it should happen that the French sample was predominantly made up of primiparas there is no discrepancy. If the breakdown of the French distribution was available, it should have been included.

Less as a criticism than a question, this reviewer would like to raise the following query: The author states quite early in the book that each of the methods he discusses is a useful one if and when used in a propitious or suitable atmosphere. One wonders whether this statement could not have been made more explicit. There is no question that many reports attest to the usefulness of each method. But might it not have been possible to present a better picture of this through one or more tables organized around published figures?

None of these criticisms should be taken as anything more than minor. As a whole the book is among the best. It makes for interesting, instructive, and stimulating reading, and both research-minded and clinically-minded readers can only gain from reading it. In final conclusion this reviewer most highly recommends this work not only to all obstetricians, but to all those who are interested in the problem of pain and its relief. Fortunately the fact that the present work is in French should not be too long a deterrent to its reading by American readers, as an English translation of this work is to be published soon by Pergamon Press.

(Editorial note. Since the above review was written, the translation of this book has appeared: *Psychosomatic Methods in Painless Childbirth: History, Theory, and Practice*, by Leon Chertok, with Foreword by Prof. R. Gordon Douglas, M.D. Translated from the 2d French edition by Denis Leigh, M.D. New York, Pergamon Press, 1959. Pp. xvi + 260. $6.50. We understand that this book has been translated also into Spanish and Italian.)

Gordon Ambrose and George Newbold. *A Handbook of Medical Hypnosis.* Second edition. Baltimore, Williams & Wilkins, 1958. Pp. xiii + 276. $6.75.

By Milton H. Erickson, M.D.

This book, originally published in England in 1956, is not recommended even as an elementary text to any one with experience in clinical hypnosis. The authors, to judge from a careful appraisal of the book's contents, are apparently competent men, but they lack ability to present their material in a well organized, adequate, and informative fashion. For example, only six of the 37 pages of the chapter on "The Hypnotic State and its Phenomena" are devoted to these topics, and 31 pages are given to more or less related topics, among them the desirable personality attributes of the hypnotist.

The clinical chapters of the book are similarly disappointing. For instance, the hypnotherapy of a case of mucous colitis is given in five uninformative lines, while the surgical description of a laparotomy two years previous is awarded 13 lines, and a negative laboratory examination a year before that is given six lines (pp. 77-81).

For the most part, the clinical chapters are primarily general discussions of various conditions for which hypnosis may be used, but with little and often no information concerning the actual use of hypnosis or techniques of application.

"References and Further Reading" lists are scattered throughout the book, but these are repetitious and frequently only general medical references.

ABSTRACTS OF CURRENT LITERATURE

Edited by Bernard E. Gorton, M.D.

The abstracts below which are followed by the letters P.A. are reprinted from Psychological Abstracts through the courtesy of the American Psychological Association.

1. Das, J. P. Factor analysis of a hypnotic scale. *Indian J. Psychol.*, 1958, **33**, 97-100.

An eight-item scale derived from the Husband-Davis and Friedlander-Sarbin scales was devised and used on 67 male students to measure depth of hypnosis. The resulting intercorrelation matrix was factor-analyzed, yielding a strong general factor of hypnotizability and a second, weak, bipolar factor. The general factor contributed 53 per cent of the total variance, whereas the bipolar factor, which relates to the motive and conceptual nature of the suggested activity contributed only 6 per cent of the variance. (A.M.W.)

2. Franklin, E. Hypnosis: a valuable medical adjunct. *J. clin. exper. Hypnosis*, 1956, **4**, 5-18.

By means of a fairly extensive sampling of cases from his general medical practice, the author attempts to show where hypnosis has been valuable in helping patients to continue work with definite physical handicaps or increase their response to therapy. (P.A.)

3. Hershman, S. Hypnosis and excessive smoking. *J. clin. exp. Hypnosis*, 1956, **4**, 24-29.

Several methods are described wherein psycho-biologic techniques can be used with hypnotic procedures to treat excessive cigarette smoking with relatively permanent results. These techniques include symptom substitution, re-education, reconditioning, reassurance, and persuasion. The use of fantasy evocation, visual imagery, etc., by means of the hypnotic state produces an increase in the patient's responsiveness to therapy. (A.M.W.)

4. Fernandes, M. A. Kasuistischer Beitrag zum meditativen Verfahren von Desoille. (Case report on the meditative procedure of Desoille.) *Z. Psychother. med. Psychol.*, 1956, **6**, 39-42.

That psychotherapy and, in particular, classical psychoanalysis, has found such limited acceptance in Portugal and Spain may be related to the extroverted orientation of the Iberian peoples. However, the following methods have been found useful in these countries: autogenic training (J. H. Schultz), graduated active hypnosis (E. Kretschmer), and the directed waking dream (R. Desoille). The author describes the treatment of a case with the method of Desoille. (P.A.)

5. Ambrose, G. Hypnosis in the treatment of nervous debility. *Med. Press*, 1957, **238**, 488-491.

The author discusses the use of hypnosis by the general practitioner in the preliminary treatment of anxiety reactions and states of mild psychogenic depression, hysterical reactions, and psychosomatic reactions. Relaxation brought about through hypnosis is very beneficial in anxiety reactions and may be profitably combined with reassurance therapy. He recommended the use of both post-hypnotic suggestions and the teaching of self-hypnosis in order to prolong these effects. Psychogenic depression is best treated by the physician at a relatively superficial analytical level in conjunction with more direct suggestion control of the symptoms. Treatment of hysterics must usually be directed at overcoming environmental stresses and conflicts, and the entire family may have to be treated with hypnosis. Evidence for the possibility of treating a large variety of psychosomatic disorders is listed. (A.M.W.)

6. Ambrose, G. Induction and termination of hypnosis in children. *Sth. afr. Practit.*, August 1958, 1-4.

All children can enter some degree of hypnosis provided adequate rapport is first established between doctor and child. This calls for the doctor's placing himself on the same level as the child patient and respecting the child as the child respects him. A simple induction technique involving visual fixation and suggestions of relaxation and sleep given in an appropriate language is recommended. With children between 8 and 15 years of age the induction should take 2 to 3 minutes. Direct therapeutic suggestions should not be given. In case of doubt whether hypnosis of appreciable depth has been attained it will still often be profitable to give suggestions aimed at facilitating future inductions of hypnosis. Other difficulties and the manner of coping with them are discussed. There are no contraindications to the use of hypnosis on children, but hyperkinetic, mentally retarded, and schizophrenic children are poor prospects for hypnotic treatment. Complications are virtually negligible. Termination of the state is extremely simple. (A.M.W.)

7. Solovey, G., and Milechnin, A. Hypnosis in everyday life. *Dis. nerv. Syst.*, 1957, **28**, 1-7.

The hypnotic state is an emotional state which in its purest and simplest form corresponds to the peculiar emotional state experienced by the infant receiving the caresses of his mother when he needs them. This is a positive hypnotic state. There is also a negative hypnotic state brought about by the authoritarian attitude of the parents. The degree of hypnosis is the extent of retrogression to the psychology of early childhood which accompanies the production of a hypnotic state. It is characterized by a reduction of the critical functions, a decrease in the capacity to differentiate between the person's own thought processes and external reality, and a less inhibited influence of mind over body. The authors develop the thesis that every normal individual is repeatedly hypnotized by his parents during his formative years and as an adult becomes prone to reenter a hypnotic state whenever placed in a situation containing some or all of the elements which were present during his hypnotic conditioning as a child. Our everyday life is full of hypnotic contacts and brief hypnotic relationships. We are all "hypnotizers" or "hypnotized" in the course of our relationships with other people. Husband-wife relations, relationships among intimate friends, pupil-teacher relations, etc., are particularly prone to be hypnotic. Education is carried out on the basis of both positive and negative hypnotic relationships. (A.M.W.)

8. Korotkin, I. I., and Suslova, M. M. (Material for the study of the nervous mechanism of post-hypnotic states in hysteria.) *Zh. vyssh. nervn. Deiatel'.*, 1955, **5** (5), 597-707.

Inhibition of conditioned and unconditioned reflexes, brought about by suggestion in the hypnotic state, carries over, as a rule, to the post-hypnotic state. Degree of such post-hypnotic inhibition is less than during hypnosis. (P.A.)

9. Solovey de Milechnin, G. Concerning a theory of hypnosis. *J. clin. exp. Hypnosis*, 1956, **4**, 37-45.

Hypnosis is interpreted as an emotional response. It is thought to be brought about by a conditioned stimulation of the primitive emotional responsiveness of an infant or small child to certain vitally important parental attitudes. It is shown that such a position does not contradict other conceptions of hypnosis, but rather complements and unifies them. 25 references. (P.A.)

10. Dittborn, J. Toward a semeiology of hypnosis. *J. clin. exp. Hypnosis*, 1956, **4**, 30-36.

An experiment is reported which attempted to relate degree of hypnosis to various qualitative and quantitative differences in the execution of certain standardized suggested behaviors. The method of induction was standardized, and hypnotic depth was measured by a test for spontaneous post-hypnotic amnesia. High and low reactors on the sway test were compared, as were fatigued and rested subjects. A large variety of relationships is reported. (P.A.)

11. Kroger, W. S. Hypnotherapy in psychosomatic obstetrics and gynecology. (Reprinted without citation of date or volume from *J. Ark. med. Soc.*)

The group training of patients for obstetric hypno-anesthesia is described. The aim is to reduce the total amount of chemoanesthesia; there is no insistence on analgesia through hypnosis alone. Advantages and disadvantages of the method are discussed. The management of nausea and vomiting of pregnancy, heartburn, and salivation and the use of hypnosis in various psychosomatic syndromes of gynecology and in the relaxation of tense patients for office examination procedures, including hystero-salpingography are outlined. The author cites experimental evidence that spasm of the fallopian tubes, one of the causes of infertility in women, can be relaxed through hypnosis. (B.E.G.)

12. Kroger, W. S. Hypnosis and its medical indications. *Pa. med. J.*, July 1958, 889-891.

Some of the recent developments in the field of medical hypnosis are reviewed. The author stresses the need for integrating the clinical use of hypnosis into a psychosomatic approach to medical problems. He points out that such procedures as "natural childbirth," psychoprophylactic relaxation, auto-conditioning, and progressive relaxation are based on hypnotic technics. The author has recently used pure hypnoanesthesia for a cesarian-hysterectomy, a thyroidectomy, excision biopsies of breast tumors, and many minor surgical procedures. (B.E.G.)

13. Schultz, J. H. Autogenous training. In J. Masserman (Ed.), *Progress in psychotherapy.* New York, Grune & Stratton, 1957. Pp. 173-176.

The originator of autogenic training describes the nature and purpose of this method of training in autohypnosis. He cites experimental data showing a rise in skin temperature of 5-7° C. occurring in subjects who have learned to control vasomotor function autogenically. The case of a skier who was buried in an avalanche of snow together with other members of his party and who used autogenic training to restore circulation in his fingers, toes, nose, and ears is reported. He was the only one to be rescued without suffering frostbite. The use of autogenic training in cases of bronchial asthma, angina pectoris, and childbirth is mentioned. At the University of Würzburg it has been found that results in obstetric anesthesia with autogenic training are comparable to those obtained with hetero-hypnosis. There is discussion of the use of the method for stimulating artistic production and the control of habits like excessive smoking. "In the case of severe neuroses autogenic training, while capable of alleviating separate symptoms, naturally does not penetrate to the heart of the matter, which can only be approached analytically." Training is readily carried out in groups but should only be used under the continuing supervision of a physician. (B.E.G.)

14. Thomas, K. Autogenes Training bei Blinden (Autogenic training with the blind). *Psychotherapie*, 1957, **2**, 161-166.

The blind are in a state of tension and anxiety because of their isolation. The frequent unexpected obstacles that often surprise them only serve to increase emotional tension; insecurity and mistrust often arise. The use of autogenic training to promote relaxation and raising adaptive capacity in the blind is discussed. (B.E.G.)

* * * * *

NOTEHAND FOR PSYCHOLOGISTS. Most people would like to write more in less time. Some learn shorthand, but shorthand is hard to learn and easy to forget. Many a person has come to abbreviate many words in his own way but not most economically for himself and others. "Notehand for Psychologists" reduces ordinary writing by about 30 per cent and psychological writing by 35 per cent. The system is primarily for handwriting, but most of it can be typed. Other fields besides psychology can use "Notehand." The system is copyrighted, but it is distributed at the approximate cost of material (five mimeographed pages) by the author. For each copy desired, send 24 cents in stamps to 15 Pierce Hall, Northampton, Mass. W. S. TAYLOR, SMITH COLLEGE.

IN MEMORIAM

The American Society of Clinical Hypnosis records with great regret the deaths during the past year of its members listed below and expresses its condolence to their families.

ARTHUR A. BRITOWICH, D.D.S.,
Baltimore, Maryland

VICTOR R. BURNHAM, D.D.S.,
Magee, Mississippi

J. LAWRENCE COCHRAN, M.D.,
Carroll, Iowa

C. T. FINK, M.D.,
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JAMES RAYMOND JARVIS, M.D.,
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Birmingham, Alabama

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Escondido, California

A TRANSCRIPT OF A TRANCE INDUCTION WITH COMMENTARY

by Milton H. Erickson, M.D.,[1] Jay Haley, M.A.,[2] and John H. Weakland, M.A.[2]

The art of offering hypnotic suggestions in such fashion that the subject can accept them and then respond to them is difficult to explain. As an approach to this involved task, the following exposition of a trance induction is offered to clarify in some ways how suggestions are offered, presumably why they are effective, the methods that may be utilized to integrate one suggestion with others and to incorporate various responses into others, and to demonstrate the readiness with which communication with a subject can be established at various levels, both separate and distinct as well as interrelated.

The situation and procedure are given in the full detail afforded by tape recordings, together with a brief explanatory introduction, with only that editing requisite to make the conversational situation intelligible to the reader.

One evening in 1956 Milton H. Erickson hypnotized a subject during a weekly seminar he conducted in Phoenix. This trance induction was recorded. The following day he listened to the recording and discussed the induction with Jay Haley and John Weakland. This conversation was also recorded. What follows is a verbatim transcript of the two recordings: the trance induction recording is presented in the first column; the conversation about the trance induction (as the initial tape is played back) is given in the second.

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[2] Stanford University and Veterans Administration Hospital, Palo Alto, California.

The authors express their gratitude to the subject, whose remarkable abilities contributed so greatly to this paper.

The hypnotic subject, who will be called Sue here, was not entirely a naive hypnotic subject. A stage hypnotist had tried to hypnotize her and rejected her, giving her the idea that she was a poor hypnotic subject. Dr. Erickson reports, "I met her for the first time at Dr. M's. I looked her over and nodded to Dr. M that she would make a good subject, and I indicated that later I wanted Dr. M to work on her. This was done by signals that Sue could not see. I went ahead on this occasion to work with another subject, and then I asked Sue to sit down in a chair beside me. I asked her if she'd like to be hypnotized, and she said, 'Yes, but I'm not a good subject.' I told her I thought she was a very good subject. I took hold of her arm and tested it for catalepsy. At the same time I tried to get some eye fixation. There was a fairly responsive eye fixation, then she shook her head and said, 'I don't think I can be hypnotized.' I asked her if she wanted Dr. M to work on her, and she did, so Doctor M had her look at the reflection of the light on the doorknob. Dr. M worked quite hard with her and produced practically no results. There was closing of the eyelids, but no catalepsy, no hand levitation, and rather restless behavior. When Dr. M told her to rouse up, she explained that she wasn't so sure she went into a trance, but that she had tried very hard to cooperate. Perhaps she 'cooperated too hard.' She didn't think she would make a good subject, even though Dr. Erickson said she would. She thought that perhaps I had made a mistake. The next time hypnosis was attempted was in her home. I had two good subjects there, and Sue really watched both of them.

She was the hostess and was answering the telephone and worrying about the children making a noise. She said, 'I'd like to be hypnotized, but I'm afraid I can't be.' I asked her to sit down and be a subject. She sat down, I tried to hypnotize her, she was restless and said, 'I can't be hypnotized, I'm no good as a subject. I'm really not listening to you. I don't think I could be a subject, but I'd really like to be one.' That was the second effort. This recording constitutes the third attempt."

Before beginning his induction that evening, Erickson purposely arranged the seating of the people in the room. A short time later he re-arranged the seating, having Sue move each time. His later comment on this was, "I put her in the chair that I later sat in, then I shifted her to the couch. I was in her place. And she had obeyed me by shifting to the couch. She'd put me in her place, with all its subtle implications. If there had been some other chair there, even if it had been more convenient to sit in it, I would have sat in her chair. The shifting prior to that implied that if there is prior shifting, there can be subsequent shifting. I introduced the idea of shifting earlier to make it completely acceptable. Then there is no chance that she is going to resist the shift." He also pointed out that on the couch Sue sat in a position where a good subject had been sitting.

The transcript of the recording of the comments on the induction, and the induction itself, follows:

Induction	Comment
	H: Before we begin I wonder if you might comment on how you knew Sue was a good subject. How do you tell that a person is going to be a good subject?
	E: When you see a person who shows decidedly responsive behavior. For example, John is introduced to you. You see him making up his mind, 'So I'll shake hands, and I will say such and such,' worrying about details of the introduction. That's the kind of personality that's very difficult. But if you see a person being introduced, and he looks expectantly toward the other person, he shows responsive behavior and natural behavior. When I visited Dr. M and was introduced to Sue, there was that completely responsive behavior. She was perfectly willing to respond, 'How do you do, Dr. Erickson,' perfectly willing to shake hands. She was waiting for cues, waiting to meet what I did. I watched her being introduced to other people, men and women. That complete responsiveness of her behavior, that's one way you can pick out a good subject. And she is that type.
	W: What do you think made it difficult for her to be hypnotized the first two times?
	E: She hadn't made up her mind about it. Her husband had raised the question with her previously, and she discounted him. She knew that he wasn't experienced. She hadn't met me, and this stage hypnotist certainly did not make a good impression on her. It was still an open question. Let's wait and see what the behavior is like, then I can respond.—That was her attitude.

Induction	Comment
E: I think, Sue, it's time for you to go into a trance.	
S: O. K.	
E: You aren't at home. That's a nice couch. Now I wonder what some of the things are that you'd like to experience in a deep trance.	*W*: You've already made it different from the last time. *H*: You didn't seem to want her to respond to that last question. You said, 'I wonder what some of the things are,' but you didn't pose it as a question that she should answer. Is it just something that you wanted her to think about?
[Fluttering of eyelids.]	*E*: You open the question, bring about a readiness to respond, and inhibit the response, you postpone the response until later. *H*: It increases the later response if you open one up and then inhibit it? *E*: You're in a responding position. *W*: I think maybe it's particularly appropriate here, partly because she has had the uncertainty about responding. *E*: You're emphasizing the fact that she's going to respond, that she's all set to respond.
E: And slowly go deeper and deeper. [Long pause.] As you go deeper and deeper asleep, you can free your hands, separate them. And let them slightly, slowly, gradually begin to lift involuntarily. Lifting just a little.	*W*: We can comment here on that. You say lifting just a little. I'm not sure whether you see a very, very minimal lifting or what, but I noticed that you certainly take—I'm not sure whether you took no response as a response, or the tiniest response and said, 'It's lifting.' There were a number of times there when you said it when I couldn't quite detect whether anything was happening or not. *E*: There was one thing that happened. Put your hand on your thigh, take a deep breath. What happened to your hand? *W*: It lifts! *E*: You time the inspiration. And they haven't got an opportunity to deny it. . . . Later on I thought I would emphasize that, by taking every other inspiration to say 'lifting.' *H*: Every other one? *E*: Yes. *W*: There's a little more going on than meets the eye! *H*: I hadn't noticed the inspirations in this at all. *E*: Nobody notices inspiration and expiration. They're used to that.
E: Lifting just a little bit more. Lifting — lifting — and lifting — and your lids are closing.	*H*: Were her lids closing at that moment? It seems to to me usually you say, 'Your lids will begin to close.' You put it in the future. I noticed that you used 'are' there, the present. *E*: A very slight quiver of the lids. They *are* closing. *H*: O. K.

Induction	Comment
E: And your hand lifting just a bit more. Lifting. Lifting. Lifting a bit. Forefingers moving. Moving just a little bit. Lifting, lifting again. And then the next finger will lift. The whole hand is stiff, lifting. Lifting. Lifting up. Lifting, lifting, lifting up.	*E*: A rising inflection. Lifting [demonstrating voice rising as he says it.] And I think you probably noticed the - - 'lifting'. *H*: The movement of the body, too. *E*: The movement of my body. And of your own unconscious localization of the sound. [Demonstrating exaggeratedly as he straightens up.] Lifting. And the conveyance of the change of location. But you never pay attention to location of sounds consciously; you accept them.
E: The elbow is bending. The wrist is lifting up.	*H*: Was the elbow bending? *E*: A slight quiver of the biceps.
E: The whole arm lifting slowly—lifting—lifting a bit more. And lifting. [Pause.] Lifting. Lifting a bit more. The elbow is bending.	*E*: The tendency there was for me to say 'Lifting a bit more, lifting a bit more, *lifting* a bit more.' The different volume in my voice. *H*: Raising the volume? *E*: Raising the volume. And you only raise the volume when it's *really* happening. Same words, but a different volume in the words. And you throw in that change of volume. *W*: There are so many levels on which the suggestive effect can be paralleled. Instead of being different levels of message contradicting each other, this is where they reinforce.
E: The elbow is lifting. The hand is lifting—lifting more and more. [The hand has lifted slightly. Long pause.] Now I want you to go deeper and deeper asleep. And to signify that you will, I want your head to nod forward ***slowly***.	*H*: It certainly nodded slowly. *W*: By saying 'slowly' or 'just a little' or something like that, when the subject is only responding minimally anyway . . . *E*: You are accepting their minimal performance, and it's good. *W*: And you're avoiding asking for something more than you're likely to get at the moment. *E*: You're content with what you're receiving, and they know it. And since you *are* content, they *must* be responding. It's fallacious, I know. And you'd rather they'd keep on being slower and *slower*. 'Just a little bit more.' How small is a little? But it *is* more.
E: [Pause.] Slowly nodding forward, still more — still more. [Pause.]	*E*: A lapse of time demonstrates that it *has* moved forward. [Fallacious but subjectively convincing.]
E: And still more. [Pause.] And you can go deeper and deeper asleep. [Pause.] And I want you to go deeper and deeper asleep.	*W*: You shift there from 'you can go deeper asleep,' which is certainly a reasonable statement from the depth she is in at that point. And then 'I want you to go deeper.'

Induction	Comment
	E: You *can*, and I want you to—and we've joined forces.
E: And I'm going to count for *you*. One . . .	*H*: Has she ever heard this count to 20 before?
	E: Yes.
	H: If she had never heard it before, would you have had to say . . .
	E: I would have explained it to her.
	H: That when you reached 20 she'd be deeply asleep.
	E: But she'd heard it before; she'd seen it used before. She already knew what counting meant. She knew what counting meant in relationship to a good subject. And she saw a good subject respond to the count. And so when I started counting for *her*, she had to bring up all her previous knowledge, all her previous understanding, but that was hers.
	W: It makes it . . .
	E: All the more accepted.
	W: It makes it more if you don't explain it. I mean, if you explain it, that implies that you've got to emphasize it, whereas if you don't explain it that implies she already knows.
	H: She's got to volunteer the understanding, yes. Well, what would you do with a naive subject who'd never heard a count before? How would you phrase that?
	E: Then I'd explain how I could count from 1 to 20, and at 5 a quarter asleep, and so on.
	H: But I was interested in the preliminaries. I was not sure whether you'd explained first, or whether you counted to 5 and then said a quarter asleep and let them figure out that if 5 is a quarter asleep, 10 must be half, 15 three quarters, and 20 the full count.
	E: It depends upon the intelligence of the subject and the readiness at grasping it. Some people even with college degrees can't understand what you mean when you say you can count to 20 by ones, or twos, that you're also telling them you can count by fours, fives. So you have to be rather elaborate. Some you can tell 'I can count to 20 in various ways,' and they think—'by ones, twos, by fours and fives.'
	H: Is it more effective if they figure it out?
	E: More effective, because they're taking the ball and carrying it.
	H: So really the minimum explanation you can get by with, the better.
	E: The more participation you can get from them, the better.
E: . . . 2, 3, 4, 5, 6, 7, 8, 9, 10—and half asleep—11, 12, 13, 14, 15 — three quarters asleep—16, 17, 18, 19, 20, and take a deep breath and go way deep sound asleep. Way deep sound asleep.	*H*: And you suggested the deep breath by taking one yourself.
	E: The very way [demonstrating with varying pauses and inflections] that I say '16, 17, 18, 19, 20, now take

Induction	Comment
	a deep breath.' [Exhaling on 19 and 20, air gone when he says 'now take a deep breath.']
	W: You need one by the time you get there.
	E: The rise in force.
	H: You rise in force and drop when you say 'go to sleep.'
E: . . . way deep sound asleep. And I want you to be sleeping sounder and sounder all the time. Sounder and sounder. Now there are certain things that you want to learn.	
	E: There are *certain* things—that you want to learn. Completely specific and so general.
	H: And you had nothing in particular in mind at that moment that she wanted to learn?
	E: The development of the evening would single out the 'certain things.' But it sounds so specific, yet really it is so general.
	H: It certainly is.
E: And I want you to be sure that you'll learn and I want you to think clearly in your own mind of all the various things you *want* to learn. And then I want you to realize that you *can* learn them, and that you *will* learn them.	
	E: That you *can*, that you *will*.
	W: And you want her to realize this, which implies, of course, it is absolutely so and all she has to do is realize that it is so.
[Tape is played. Long pause.]	*E*: And she's obligated in all directions. She's having time to realize.
E: And go *still* deeper. Still deeper asleep. [Pause.] And now, Sue, I'm going shortly to awaken you. And there are certain things that I want you to do. And I really *want* you to do them.	
	H: At this point you had already lifted her arms. Now when you lifted her left hand—as I remember, she hadn't levitated at all prior to that.
	E: Just fluttered the arm.
	H: Yes. When you lifted her left arm, you put it in a position where it would remain very easily, even if she were awake. You established that, and then you lifted the right arm into a position that required more catalepsy.
	E: That is, I established *easy* catalepsy, a very convincing experience subjectively. And it's really so. Therefore, it's so on the other side.
	H: Yes. Why couldn't you have worked further to get levitation for her?
	E: In ordinary life, she's rather quick and active. When she relaxes, she's slow. It takes too much time.
	H: When you say in this last piece, 'I really want you to do it,' now this is related to something that interests us. How you use her concern about *you*.
	W: Isn't it also a little more than that, as I heard it, a little bit, it's 'I really *want* you—to do that.'

Induction	Comment
	E: You want to learn certain things, I really want you to. She's already had a suggestion that 'there are certain things you want to learn.'
	H: But was this a second suggestion on how there are certain things she was going to do?
	E: The background was: There are certain things that she wants to learn. I'm the teacher, therefore I really want her to do these things because I, as the teacher can help her to learn the things that she really wants to learn. So it becomes a cooperative venture.
	H: Well, it's cooperative, but it's using her concern about her to a great extent.
	E: She wants me to be the teacher.
	H: Yes, that's right.
E: . . . and you may enjoy doing them.	*H*: Why do you use the word 'may' there? Doesn't that pose the problem 'you may not' when you use 'may' instead of 'will?'
	E: I'd just told her 'I want you to do this.' That's awfully dictatorial. Let's contrast it with permissiveness. 'You *may* enjoy doing this.' So I've stepped from my completely dictatorial to a permissive role.
E: After you are awakened, Sue, I want you to tell me that you weren't *really* in a trance. And I want you to believe it.	*H*: Did you assume she would do that anyhow?
	E: There's a good possibility. So whatever negative thing she has said will really be a positive thing.
E: And I want you to be emphatic in your statement. Quite emphatic. And you will be, will you not? [Pause.] And whatever else you need to do you will do, will you not?	*H*: You put a frame around it.
	H: What did you have in mind there?
	E: Whatever else you need to do, you really will do.
E: [Pause.] And after you are awakened, you will *not* believe that you were in a trance. You'll be emphatic in your belief; you'll be polite about it. But you will know that you were not in a trance.	*W*: Isn't that also in a way an amnesia suggestion?
	E: Essentially.
	W: So you take her tendency to produce denial and produce a phenomenon with it.
	E: With it. And I say '*emphatic,*' and my enunciation of the word 'emphatic' is also emphatic. 'But you'll be polite about it.' And there again, 'you'll be polite about it' intensifies the need to deny, because she is going to be polite, she's under tremendous compulsion, cultural compulsion, to be polite. But the situation has been created in which she's got to be polite about a certain thing. She's under compulsion to be polite. That requires her to deny that she was in a trance.
	H: She's under compulsion to be polite about something she feels emphatically about.
	E: Yes. But she's also under compulsion to be polite. And there's only one thing in that situation, and so she has to be polite about it, thereby validating the existence of that one thing.

Induction	Comment
E: And now I'm going to awaken you, Sue. And I'll awaken you. [Pause.] I'll awaken you by counting backwards from 20 to 1. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3 2, 1—awaken. Do you feel a bit tired, Sue? [Sue clears throat.] Do you think I'm right in thinking you're a good hypnotic subject. [She shakes her head.] You don't.	
S: I sure try.	
E: You surely do. How many times do you think we'll have to try?	*E*: Notice the change in my voice to fit a casual, social scene.
S: Oh, I hope it won't be long [Laughing slightly.]	*H*: Is her statement 'I hope it won't be long' also a statement 'I hope I won't have to deny this very long?'
E: [Joining laugh.] Yes, I hope it won't be long until I get that fly. [He holds the fly swatter. Before trance he and subject had been pursuing a fly.]	*E*: That may be, but I'm really switching away from the trance with that fly.
S: Didn't you get him yet?	*H*: You surely are.
E: No.	*E*: And she's joining me in that fly business.
S: Oh, my!	*W*: You switch away from it, that makes easier the belief that it didn't happen.
	E: That's right.
	H: Do you think she had amnesia for it then?
	E: I don't know. But we really got on the subject of the fly, and she could really join me, so we could share something in common.
	H: She sounded very girlish when she joined you.
	E: We could really be two against that adverse crowd.
	W: Yes.
	E: The others didn't really approve of us, but we two were kindred souls in the absurd pursuit of the fly.
	H: You established that earlier, as I remember.
[Inaudible comments from others present about flies.]	
E: Have you any idea what time it is?	*W*: It just struck me that you brought up the question of time here, and then you brought it up later about how long she would feel—how much time had passed—was this a set-up?
S: No.	
E: Five minutes of eight.	
S: Really?	
E: Maybe you've been asleep.	*E*: Yes, that is, I had a whole lot of set-ups. Here, there, everywhere. Knowing that I could not use all the set-ups, but I would be certain to use some of them. Not knowing what will develop, beter have plenty of set-ups that you can use. A multitude of preliminary suggestions offers an opportunity for subsequent selection and use.
S: I don't think so.	
E: Sure about that?	
S: Pretty sure.	
	H: She wasn't emphatic there.

Induction	Comment
E: You know, there's an astonishing phrase in the language?	
S: Yes?	
E: For a complete dinner, we speak of it as everything from soup to nuts, do we not?	
S: Yes.	
E: And you really *understand* what that means, don't you? Soup to nuts. And then, let's see, there's another phrase, everything from A to Z. It's pretty conclusive, isn't it? And inclusive. And you really *understand* what A to Z *means*.	*E*: 'Understand' is the word. And all I'm telling her is to prepare herself to *understand*. It's a distraction, the soup to nuts, A to Z, *understand*. *H*: Is that just a distraction, or is that a statement that there's going to be a completion, from soup to nuts, from A to Z, from 1 to 20? *E*: Yes, soup to nuts tells her the type of understanding. But she can start thinking about soup-nuts, A-Z, but *understand* puts it back . . .
E: And then you can vary the phrase. Everything from 1 to 20. [Pause.] From 1 to to and . . . take a deep breath. Go way deep asleep. [Pause.]	*H*: One question comes up here. I notice that you repeat that 'everything from 1 to 20' twice. Sometimes you repeat things, and sometimes you just drop them casually, saying it once. I wonder why it's necessary to repeat it. *E*: Well, I wanted her to go deeply into a trance. *H*: And repetition does that. *E*: Yes.
E: That's right. And you can really do it, can't you? [Pause.] And you can, can't you?	*E*: Always match your positives to your negatives. 'And you *can* . . . ' If they're going to say 'can't', better anticipate them. *H*: I see. So that when you say, 'And you can,' they don't think 'but I can't.' *E*: I've beaten them to it. I've said they can't, it's been said, they don't need to say it, therefore, not being able to say it, they can't act upon it. And the use of that 'can't you' has a positive effect. 'And you *can*, can't you?' You've got a negative positively stated; it prevents them from saying 'I can't.' *H*: Is it the same with 'And you will, won't you?' *E*: Yes.
E: And you really can. You can nod your head. [Pause.] It rather surprised you, didn't it?	
	H: Did you pick that up from her, or just assume it? *E*: It did surprise her. *H*: How did you know? *E*: She was thinking 'soup to nuts,' A to Z, 1 to 20. And then surprised that soup to nuts, A to Z, could also be 1 to 20. *H*: Then you assumed the surprise, you didn't see from her expression that she was surprised.

Induction	Comment
	E: From the suddenness of her reaction to it, you can legitimately deduce surprise. I don't recall that I saw any particular expression of surprise.
	H: I just remember wondering at the time whether you were seeing something I wasn't seeing or whether you just assumed it.
E: [Long pause.] After you are awakened again, Sue,—and I ask you about going into a trance, I want you to tell me that you weren't asleep the second time, that you were the first time. And you're most insistent on that, and you will repeat that, Sue, will you not?	
	W: Now by changing your 'no' to the second one, you begin to get your acceptance catching up as you go along?
	E: Yes. First I had her deny the first trance. Now I'm nullifying that denial.
	W: By giving her another 'no' to work on in the meantime.
	E: And in order to work on the second negation, she's got to affirm the first.
	H: A use of double binds!
	E: What else can she do?
	W: Well, one might approach that question by saying, 'Suppose someone said that to you, what would you do?'
	E: Every manipulator works it on that basis, too.
	H: Well, when you get two like that, it does put her in a position where she has to affirm one of them in order to deny the other, yes.
	E: In order to deny one of them, she has to affirm the other. The affirmation of one of them is the means of denying the other.
	H: That's a classic double bind you've got there.
	W: And why can't she see it, or comment on it?
	E: In other words, why doesn't she say, 'I wasn't asleep either time.' We're talking about two separate trances. (They were compartmentalized.)
	H: She couldn't comment on both with one word like 'either,' you mean.
	E: That's right.
E: And now, I'm going to awaken you. I'm going to count backwards from 20 to 1. 20, 15, 10—half awake—and 5, and 4, and 2, 3, 4, and 5, and 6, 7, 8, 9, 10—half asleep—and 9 and 8 and 7 and 6, 5, 4, 3 [slight pause], 2, 1. Wake up.	

Induction	Comment
	W: Did you pause there to emphasize that the 2 was coming up again? It seemed as if you got down to 3, and just before the 2, that was the reversal point.
	E: Just a wee bit louder.
	H: What effect does it have when you give her the rough bounce but only up to 10?
	E: 'I can put you in any level of trance.' And simply, and easily, and comfortably. And she is going to know that I said '4, 2—3, 4.' Perhaps I said that 3 to correct myself. I shouldn't have skipped 3. I really shouldn't have, supposedly. And it's good that I said: 4, 5, 6. And then the goodness relates to going back into the trance.
	H: That's the soft bounce.
E: Thirsty?	
S: Yes.	
E: Be horrible if you could not pick up that glass of water, wouldn't it, Sue?	*H*: O. K. What about that?
S: Yes.	*W*: Yes, how did all of that work?
	E: She awakened with an eager look, the wetting of her lips, and 'be horrible [after a pause] if you couldn't pick up a glass of water.'
	H: Is 'be horrible,' then a statement about her feelings of thirst?
	E: Yes. What I said was 'be horrible if you couldn't get that drink,' I also said *be horrible*. *Be*, the verb *to be*. It was a command.
	H: You were commanding her to be horrible.
	E: Yes.
	H: Now how does that keep her from reaching for a glass of water?
	E: That's comforting, that's pleasing, that's not horrible. And it would be horrible if she couldn't get that glass of water.
	H: It would be the same if you said 'be uncomfortable.' 'You would be uncomfortable if you couldn't reach for that glass of water.'
	E: 'It would be uncomfortable if you couldn't reach that glass of water.' But 'it would' be uncomfortable.
	H: What did you say? [They listen again.]
	E: There was no 'it would' there.
	H: There certainly wasn't. Well, why did you choose 'be horrible?'
	E: Because she was licking her lips. You don't say 'uncomfortable,' you use a stronger word.
	H: Well, why did she obey that suggestion if she were awake?
	E: Because I had first said 'thirsty.' Listen to the way I said 'thirsty.' [The tape is replayed.]
E: Thirsty!	*H*: Not a question, you mean. You mean it doesn't have a question inflection?
	E: It's also a command. 'Thirsty.'

Induction	Comment
	H: Well, did that command put her back in trance?
	E: What is she going to be in, 'thirsty'? 'Thirsty!' Is it a question, is it a command, just what is it? When the later statement is made, 'thirsty' becomes a command.
	H: What I am trying to get clear is whether you awakened her, when you said 'wake up.'
	E: Yes.
	H: And then 'thirsty' put her back in trance?
	E: The 'thirsty' arrested her behavior. Just what did I mean? Was it an inquiry; was it a command? Just what was it?
	H: And then 'be horrible' did what?
	E: It was a command.
	W: This might be a place where we could raise the general question: In an induction like this, how much do you simply do these things and how much do you do A, B, C, D, E, F, G? As we speak over the moves now, we can, in a sense, pick out and identify so many things as such. Are we identifying more than went through your mind when you were doing it? I mean, did you do it as consciously as you describe it to us now?
	E: Well, you see, I noticed that licking of her lips, the directing of her glance, her general body movements. I couldn't know whether I wanted her to drink, whether I wanted to suggest that she drink, or what I would do. So I threw in that word, where neither she nor I really knew the interpretation. And having thrown it in, then I had enough time to say, 'I will now use that word,' but it was a nondescript usage, it wasn't a question.
	W: It was a nondescript but specific response to what she had just done.
	E: Yes, but it was a nondescript utterance of the word. Neither a question nor a command, really an observation of a state of some kind, which gave me time to decide how to use it.
	H: Now when you said 'be horrible if you couldn't pick up that glass,' did she then go into trance? And she had been awake a moment before.
	E: Yes.
	H: Just the fact that you had given her a command put her in trance?
	E: Yes.
	W: I wonder if there was a partial thing there. I had the feeling watching it that it was as if she didn't dare test that one out to the limit. Now when I hear the 'be horrible', it's almost as if 'well, it's bad if I don't get it, but if I tried real hard to get it, and couldn't get it, then that would really be horrible.'
	E: That might be.

Induction	Comment
	H: Now this is another example. In the inductions I've watched you do, in each one there is a kind of a challenge to the subject to try something which they find they can't do. Do you try to set this up for each induction?
	E: Yes. And repeatedly throughout the evening I use that.
	H: That's the only example I can think of.
	E: We'll probably run across more.
S: [Laughing slightly.] I can't.	
E: What's that?	
S: I can't.	
E: You're getting thirsty.	
S: I'm always thirsty.	*H*: Was that 'I'm always thirsty' an agreement that she was following your suggestion while denying it? It's an acceptance that she was getting thirsty but also a statement 'I'm always getting thirsty, it isn't you.'
E: You must have been in a trance.	
S: Not really.	*W*: Making it her own, in her own experience.
E: Not really?	*H*: But also partially denying that she was thirsty because you were saying so.
S: No, no. I think you'd better work on your wife, or F.	*E*: It's relating it to herself.
E: Yes.	
S: I really do. Because maybe I'll get better from watching them.	
E: Can you pick up that glass of water?	
S: [Pause.] I don't think so.	
E: What?	
S: I don't think so.	
E: You must have been in a trance. It seems to me as if you're acting as if you had a post-hypnotic suggestion. Could be you were in a trance *one* of the times. Especially . . .	
S: [Interrupting.] Well, I think I [clears her throat] was deeper in the first time.	*W*: Doesn't she compromise again in a way a little bit with your suggestion to deny one, and instead of saying 'yes' and 'no', she says, 'Well, more than.'
	E: Because I raised the question 'are you still in a trance now?' when I raised the question whether she was under the influence of a post-hypnotic suggestion.
	H: Well, first she said you'd better work with somebody else, and you said 'can you reach for the glass of water?', and she couldn't—did she go back into trance at that moment? Or was she continuing?
	E: A vacillation up and down, in and out of a trance. Waiting for some kind of a cue from me to jell her state.

Induction	Comment
	H: I've often seen that kind of thing when somebody feels he's awake in a trance, and you ask him if he can reach for a glass of water. Then he finds he can't, and he feels maybe he is in a trance. But I never saw it done when a person is awake. And you brought up the possibility of a post-hypnotic suggestion, was that to put a doubt in her mind about the trance? Whether she had received one she didn't know about?
E: By the way, when did you get the post-hypnotic suggestion about the glass of water?	*E*: To make her awfully uncertain as to her state of awareness. And if she's uncertain about her state of awareness, then she can rely upon me to clarify it.
S: I don't remember any.	*W*: It seems to me if she's uncertain she's *got* to rely on you to clarify it.
E: You don't remember. [Pause.] Did you go in deeper the first time? It seems to me that you told me you weren't in a trance the first time.	*E*: Yes, she's got to rely on me. Therefore she's got to do my suggestions.
S: Well [Pause], not like L. [A good subject she had seen in a trance].	
E: Yes?	*E*: Another item there that you will overlook is the fact in inducing a trance, you say 'I want you to go deeper asleep, still deeper,' a pause, 'still deeper,' a pause, and later in casual conversation I can ask you, 'Is your dress light [Pause] colored?' The pause itself can become a cue.
	W: Could you use uncertainty in the tone of your voice if you wished to?
	E: Oh, yes. And you can often use anxiety in your tone of voice to achieve certain results.
E: Maybe this last time you weren't in a trance.	*H*: In our terms, the pause becomes a message then.
S: I'd love to say yes.	*E*: A message interpreted in terms of the effect of previous pauses. The not saying of something that had conditioned her previously.
E: You really would? And you'd really love a drink of water, wouldn't you? It is nice to pick it up, isn't it?	*H*: Why did you point out to her that she had said before that she hadn't been asleep the first time?
	E: Forcing her to recognize that I *can* direct her attention. To have her agree to it, then to agree to do it. I have no hesitation at all in doing that.
	H: No hesitation about pointing out contradictions in what she says?
	E: That's right.
	H: Whereas she has hesitations about pointing out contradictions in what *you* say.
	E: I'm the secure one, she had better follow along.
	W: And this could also mean not only by your pointing out contradictions but also quite the opposite. I mean, you could be free to leave one without pointing it out, and get a similar result out of it. That is, you could say something contradictory yourself and go right ahead with it.
	E: I can't think of a particular instance in hypnosis, but some troops in training were caught in a bog and

Induction	Comment
	the officer lost his head, and the men were about to panic when one of the recruits said, 'This way, boys.' And he started off confidently. That was the end of the panic. *He* was secure. Over and over in battle this sort of thing would happen. Someone suddenly assumed an attitude of security in certain situations. *H*: Is that why you once said it would bother the subject who was put into the stage trance if you could arouse anxiety in the hypnotist's voice? *E*: Yes. *H*: It's that important, that there be no anxiety in the hypnotist's voice. *E*: That's right. In seminarians in practice sessions their anxiety in their own voice is detected by their fellow seminarians acting as subjects. Over and over again they will say I was going into a trance very satisfactorily until you got uncertainty in the tone of your voice. *W*: You've now given her the nice experience.
E: It is nice to pick it up, isn't it? [Long pause.] Isn't it? [Pause.] Just watch your hand. See what it does. There's your hand going to the glass. Watch it. It's moving to the left a little. [Pause.] Is it moving toward the glass? *S*: A little bit. *E*: Watch it, your hand moving.	H: Now was that all to wait for your permission to reach for the glass? *E*: To initiate the move. *H*: Waiting for *you* to initiate the move. *E*: And for her . . . *H*: Oh, for *her* to initiate it and you to approve it? *E*: Yes. *H*: Because once you asked if it was moving toward the glass, then she did this movement and she reached for it.
E: All that suffering for so small a sip? Don't you think you had better take another sip?	*E*: All right, she took a sip because she was thirsty. It was such a small sip. Then I had her take another. I was really generous, wasn't I? For one additional sip of water, I've got a lot of credit for generosity. *H*: And how that situation gets set up! Where a small sip of water becomes that loaded as far as your generosity goes. *W*: That's because there could be no sip at all. And all this is going on in the first 20 minutes. *H*: Yes.
[Long silence, during which E holds out his hand before Sue, and slowly closes his five fingers into a fist; then again, four times in all. Sue watches intently.]	
E: And now you're beginning to know that you can sleep like L, aren't you. Beginning to know. [Silence and long pause.] And you	

Induction	Comment
can close your eyes and go really deeply asleep, with a deep breath. A deep breath, and go really deep asleep. That's right. Deeply asleep. [Pause.] I'm going to talk to the others, but you just keep right on sleeping. And I want you to be interested in the fact that you can see my hand, too. [To others.] That answers your question about the communication of ideas, doesn't it?	*H*: Did you tell her then that while you turned and talked to the others she could see your hand? Weren't her eyes closed at that moment? *E*: She could continue to see my hand, whether her eyes were open or closed. H: That was the first move toward an hallucination then.
E: [Pause.] And sleeping deeply, Sue. And this time when you awaken, I want you to recall how you went to sleep this last time, and try to explain it to the group. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. And wake up.	*E*: I gave her a post-hypnotic suggestion that she was to explain to the group how she went to sleep, what caused her to go to sleep. As surely as she could explain this, she is really ratifying very thoroughly the fact that she was in a trance. She's confirmed it, she's ratifying it, she's making it a matter of public explanation, she's making an utterly definitive statement, explaining to an interested group, a respectful group, and thereby ratifying her own experience. *H*: When you put the question to her, how did she go in a trance? You started 20, 19 . . . Was that to give her a cue? *E*: That was a wake-up signal. *H*: I know, but you put the question and then put in the 20 so fast there, as if they were related. *E*: That was separating them. *W*: Isn't it also true that you give a post-hypnotic suggestion which you then—both you and the group—help her to carry out, because the suggestion is about something that you're going to be likely talking about as soon as you wake her up anyway? It seems to me this is the type of suggestion you could get more or less carried out in a light trance because it doesn't appear so much as a suggestion, that is, it doesn't appear set off from other things, it flows naturally into the discussion that comes up any way. *E*: Even with a light trance you ask them to explain how light the trance was. But they are ratifying that there was a trance. *H*: When you pose that post-hypnotic suggestion to her, in order to discuss it as soon as she awakens, she has to either go back in a trance or still be in a trance, doesn't she? I mean, you're not really awakening her. *E*: Not really awakening her fully.
E: How did you happen to go to sleep this last time, Sue?	

Induction	Comment
S: Watching your hand.	*E*: That whole explanation that she gave is informative. She watched my hand, the movement of it—those were her conscious reactions. She was not aware that she counted 20 unconsciously. There's that sharp differentiation. The counting, which occurred unconsciously, the conscious watching of the hand, the movement. That was her conscious response.
E: What did my hand do?	*H*: Do you have any idea why there was such an inhibition on knowing that she counted.
S: It went like this [Opening and closing hand].	*E*: Because counting belongs to the trance. Just as you give a post-hypnotic suggestion, 'whenever I put one cigarette package on top of the other, you'll go into a trance.' And then you say, 'Now this is much more than this.' [Putting one package on top of another after shuffling various objects on his desk.] And when you ask for an explanation later of what you did, the subject says, 'You picked up your case records and put them in order, you straightened up your schedule book, you moved the calendar, and I watched you.' Here is the thing that they didn't see completely [putting package on another]. They may say, 'You started to reach for your package of cigarettes, and first you did this, and this.' This [the package] is another thing; it belongs to the unconscious.
E: And what did you do?	*W*: Well, is that the fact that the induction process—that is, when you have a general amnesia for the trance, it includes from the point at which induction really began, doesn't it? It is as if the induction were a part of the trance situation that is forgotten.
S: Just like this [Closes her eyes].	*E*: Yes. 'I sat down in the chair, you asked me to put my hands in my lap, and now half an hour has passed,' is a representative example.
E: And what did it mean to you?	*H*: Another thing that puzzles me is that she says this as a post-hypnotic suggestion and therefore she can't have re-entered the trance to follow the suggestion. Yet she is giving her conscious description and not the number. So that, even in a trance, she doesn't know why.
S: [Pause] Hands clasped.	*E*: Yes, but you see, I didn't give her a number.
E: Yes?	*H*: You didn't?
S: The movement, the flexing of the muscles. Just watched them.	*E*: No, it was her interpretation. I didn't give her a number. She understood.
	H: She understood and didn't know she understood.
	E: That's right. But I didn't give her a number. All she saw me doing was flexing my fingers.
	H: Well, you didn't ask her what you did that put her in trance, you asked her why she went to sleep.
	E: Yes.

Induction	Comment
	H: And she didn't reply, 'Well, I interpreted that as the number 20.'
	E: No, because as soon as she interpreted it as 1 to 20 —which is an instantaneous realization—it was all completed.
	H: And that was part of the trance. Did she have amnesia for that whole trance?
	E: Except that she really didn't know she was in a trance.
	H: Well, it's a kind of peculiar thing. She didn't know that she was in a trance, she had amnesia for the trance, and yet she was trying to explain what put her in a trance.
	E: Yes, it was different levels of circumscribed awareness.
	W: It gets pretty complicated in that one.
S: [The lights dim briefly.] Did everybody see that?	*H*: It surely does.
E: Yes, but what were you thinking? Why did you go to sleep?	
S: [Pause, clearing throat.]	*H*: Why did you do it that way?
E: They have a deep freeze.	*E*: It was in reply to her question, was it not?
S: What?	*W*: Yes, you didn't say it right away, but only after you asked her again about why she went to sleep.
E: They have a deep freeze.	
S: Who does? Oh, Bill [the host].	*E*: Yes, I started her on a train of thought about why she went to sleep. And then I offered an irrelevant observation about the deep freeze.
	H: She said 'Oh, Bill!' Why did you do that?
	E: To give you a contrast between the type of talking and tone of speech that she manifested while thinking about why she went to sleep. And I offered that observation in the same tone of voice that called for ordinary waking behavior and her voice demonstrated it so beautifully.
	H: It surely did.
	W: There's one other thing, too. At the same time, you then become the person who settled the question about the flicker.
	E: Oh, yes.
	H: And you also settled the question of what was going to be talked about.
S: Oh, that's what the light was. I see.	
E: [Pause.] What else were you thinking about as you watched my hand?	
S: Well, to me something like this [a fist] has always connoted strength. I couldn't tell you right off what was . . .	*H*: Did you notice her husband got up and lit F's cigarette when she said that? You were lighting her cigarette at that moment, and he got up and went clear across the room and lit F's.
	E: That's right, I noticed that.

Induction	Comment
E: Anything else?	
S: The breathing.	*H*: Did you time that to her breathing?
E: Yes.	*E*: I don't recall. I may have done so automatically.
S: The way your body breathed in and out, and I could feel myself breathing as you were.	
E: Now suppose you let your unconscious *give* me an answer. Now why . . .	
S: The closing of the eyes.	
E: Go to *sleep*. [Pause.]	
S: Because you wanted me to.	*H*: I wonder if that wasn't a real answer, 'because you wanted me to.'
E: When was the last time you went to sleep?	*E*: That's right. Now how did I teach her that I wanted her to? When I count from 1 to 20, that's the demonstration that I want her to go to sleep 'because you wanted me to.'
S: Just now.	*H*: And when you moved your hand, what you did was look at her very intently, and then you moved your hand. I mean, your looking at her was also a statement 'I want you to go to sleep,' as well as moving the hand.
E: That's right.	*E*: Looking at her meant, 'your attention, please.' [Demonstrates hand passing in front of his face to arm of chair and then flexing.] 'Your attention, please.'
	H: Well, the only reason you really wanted her attention was to put her in the trance, wasn't it?
	E: Yes, though I could get her attention by asking a question.
E: What was I saying to you, Sue, when you went to sleep? [Long pause.] You're not really awake now, are you?	
S: I don't think so.	
E: You don't think so. You really don't think so, do you? And you really don't think you're awake. And if you don't think you're awake, you're beginning to think at the moment you're asleep. You're beginning to think and to know that you are asleep? You'll find that out as your eyes close. They are closing more. [Pause.] And more. [Pause.] And more. That's it. And sleeping deeply and soundly. Very soundly, very soundly. And you can smoke while you're asleep, Sue. Do you want to? Then I'll take your cigarette. [Long pause.] Now, Sue, I'm	*W*: What strikes me here is that this is a remarkably late time now for you to say 'you're beginning to think.' Since you've been through two or three maneuvers on this before, the 'beginning' sort of stands out to me, and I wonder if that has a special significance. *E*: No, it's just a matter of repetition. A good technique keeps referring back.

Induction	Comment
going to awaken you again. I'll tell you when to go to sleep, Sue, but *you won't know it.* I'll tell you when to go to sleep, but *you won't know it.* But you'll go to sleep.	
	E: I can count her to sleep. I can tell her to go to sleep.
	E: We may have to play it back to realize what I said to Sue. 'I will tell you when to go to sleep, but *you* won't—*know* it.'
	H: The other kind of "no"—meaning you won't refuse?
	E: No.
	H: It sounds like that.
	E: 'But you won't-know it.' That's a double statement. It means you won't know when I tell you this, you just won't know it. And also it says '*know* it' when I tell you to go to sleep.
	W: Separating it on two levels.
	E: Separating it on two levels. 'You *won't know* it, you won't *know it.*' Meaning, you won't know it when I tell you to go to sleep—*know* it when I tell you to go to sleep. Play it back. [The tape is replayed.]
	H: It's very hard for me to tell the difference.
	E: They're much more acute than you are. [The tape is replayed.]
	E: You won't—*know* it.
	H: Well, is it the same on both those repetitions, or different.
	E: Essentially the same.
	H: Oh, I was trying to find the difference.
	E: They're both the same. There's a slight downward inflection on 'won't,' on 'know it,' a rising inflection, a slight rising inflection on 'know.'
	H: Yes, I see it now.
E: [Pause.] And you will want to, won't you, when I tell you to? Even though you don't know it. You will go to sleep, will you not? When I tell you to. Even though you don't know it.	
	H: Why did you follow that first series of 'don't know it' with 'you will,' and then you said, 'And you will, won't you? Meaning, 'You will know it, won't you?'
	E: Yes.
E: . . . And you're beginning to realize you can *sleep,* like L. And you can. And you're knowing it more and more, are you not? [Pause.] From 20 to 17 is 3—and 4 from that is 13—and 3 *more* makes 10—you're half awake. And 9, and 8, and 7, 6, and 5, 4, 3, 2, 1. Wake up. Somewhere in the hassle you lost your cigarette. Would you like it? Mrs. C, this is Dr. and Mrs. Fingle.	E: Three from 20 is 17, 4 from that is 13, and 3 *more* is 10.
	H: Is that what you said then? [The tape is replayed.]
	E: I want to put addition in there. Because after that I'm going to start adding.

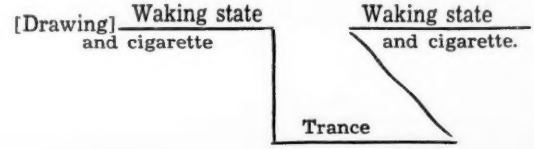
Induction	Comment
S: How do you do. My hand is so cold. This one. It's cold.	*W*: This is the hand from which you took the cigarette. That she comments on. This is odd. I wonder if there's a connection there.
E: Would you like your cigarette?	*E*: I think it was just a subjective observation.
S: Yes.	*W*: It struck me, because in taking away the cigarette you talked more about 'do you want to smoke' and finally she said a little 'no,' and you took the cigarette. And then you offered back the cigarette and so I wondered if there was any connection.
E: Tell me, Sue, have you been in a trance.	*E*: I didn't follow that out at all.
S: I think *so*.	
E: You think so.	
S: Yes.	
E: Are you awake now?	
S: I think so. I'm not sure.	
E: Well, Mr. Haley and Mr. Weakland are recording everything here. They want a discussion of t h i s later. They'll probably use it in their research project.	
S: Fine.	
E: Shall we really fascinate 'em?	
S: [Low.] Yes.	
E: I have eight children.	
S: I know. I think it's marvelous.	
E: And then there's some who have a dozen. [Pause.] And you know now, don't you?	*H*: That's what you wanted the adding in there for!
	E: That's right. See how far in advance I planned that.
	W: Far ahead of me.
	E: I didn't know quite how to get that dozen in. But I was going to use addition. And '3 *more* is 10.' I had the concept of addition there, and I waited for an opportunity. I had laid my foundation for adding, first by obvious subtraction, and then by 'and 3 more—is 10.' Is that addition or subtraction? But the question of addition would necessarily arise.
	H: Do you think she would have reacted to the addition of 8 plus 12 if you hadn't put in the addition earlier?
	E: Well, when I was subtracting 3 from 20 and making it 17, I knew I was going to need addition. While I was getting 4 from 17, realizing I had to get addition in there somewhere, what could I make as a casual statement so I could add something later to get 20? The first casual statement was the number of children I have. Now how would I verbalize '12'? Should I make it 'a dozen?' I thought at the last moment if I used 'dozen,' that would be '1, 2.' She would have to translate 'dozen' into 12—8 and 12 makes 20. So I made it the more involved 'dozen.'
	H: Well, what if you hadn't this addition in the counting earlier, do you think she would have gone into a trance on the basis of 8 plus a dozen?

Induction	Comment
	E: She might not. I wanted to insure it. I also wanted to show you how to plant suggestions. *H*: You showed us all right. Any particular reason for not bringing up the recorder and research earlier? *E*: She had been going into a trance, and earlier a mention of her being used for research might frighten her. It would remain an unanswered question. After she had been in a trance several times, then it was safe for me to bring it up because she had already been recorded, she was going to be used for research. If mentioned at first, it would be a threat, but now it's an accomplished fact she's going to be used for research, and it's obviously being continued, therefore it means her performance is valid. *H*: You employ odd mixtures of accomplished facts that turn into beneficial situations.
E: That's right. Close your eyes and go to sleep and 12 and 8 is 20, isn't it? Isn't that right?	*H*: So you say '3 more is 10.' You didn't raise a questioning inflection on 10. *W*: A little bit, I thought. [The tape is replayed.]
E: 3 from 20 is 17 and 4 from that is 13, and 3 *more* is 10 and you're half asleep. [Long pause.] And after you are awakened, Sue, I want to introduce you to some people. You haven't met them before. And you *really haven't.*	*E*: Waking her up, the 3 *more* is again literally an addition phenomenon. And yet, it's used as subtraction. Waking her up I would say 'half *awake*' because I wanted to add the idea of addition—I was going to use it later. I put in half *asleep* instead of half awake, and much later I could again use 8 plus 12 is 20. *H*: Why did you say 'you really haven't?' *E*: I wanted an amnesia. Now the effect of that is to transform the memory, the conscious memory of having met them, into a possibly trance hallucinatory experience. And to alter its identity. And thus it could be reduced to a trance experience and an amnesic experience.
E: . . . And you'll be pleased to meet them. I'll tell you their names now, but you will forget their names until after you awaken. But then you'll remember when I tell you them. Dr. and Mrs. Fingle.	*H*: By saying 'you really haven't' the implication could be that what you say relates to an hallucination, you mean? *E*: Or the entire process of introduction was an hallucinatory experience belonging to a trance, therefore an amnesic experience. *H*: What she did after she awakened was ask about their names a couple of times, wasn't it? *E*: At least once. *H*: Trying to get it clear. And you said here, 'You'll forget their names until after you awaken and then you'll remember them.' Was she busy making sure she'd remember them? *E*: That's right. *W*: Wait a minute, why do you tell her the names and then tell her to forget them here? Is that to get that

Induction	Comment
	back into the trance experience so that she can get rid of it?
	E: Yes.
	H: You make this trance experience such an isolated thing.
E: Now I'm going to awaken you. 20, 15, 10, 5, 4, 3, 2, 1. Wake. I think you've been asleep again.	*E*: It serves to enhance specific phenomena.
	H: You don't say '20, 15, 10, 5, 1.' Would that be too sharp a jump for awakening?
S: Yes.	*E*: Maybe she isn't awakening that rapidly. I have to give her some time to catch up.
E: Here comes that fly again.	
S: Oh, the fly.	
E: Oh, Sue, there are a couple of strangers here, Dr. and Mrs. Fingle.	*W*: And there you reinforce your previous suggestion by saying 'a couple of strangers.'
F: How do you do?	*E*: Yes, that is, make your waking situation as valid as possible.
S: How do you do? What's the name?	*H*: They were strangers.
E: Fingle.	*E*: If she hadn't met them before, I'd better agree with my statement—a couple of strangers. I'd better be consistent, too. And therefore I set the example of consistency.
S: Fingle.	*H*: And she will use that as a model—if you set an example of consistency.
E: Fingle.	*E*: I want to be consistent to give my subjects a feeling of comfort and security. I make my statements valid.
	W: Well, when you contradict one, you contradict it very flatly. 'You haven't met them.'
	E: 'And you *really* haven't.' What does '*really* haven't' mean? A very special significance.
	H: In what way is it special?
	E: 'You haven't *really* eaten a midnight snack until you have eaten one *I* prepared. You really haven't.'
	H: There's that playing on the word 'really' again.
	E: Yes.
	H: That's the trickiest word in the whole business. It's one of those words that can be literal or metaphorical or halfway in between.
E: Who's asleep around here?	
S: I'm going back.	
E: How many times have you been asleep? Say any number of times.	
S: Four.	
E: [Pause.] Not bad.	
S: [Bursting out laughing.] I didn't really mean it. That just came out. [Both laughing.]	
E: You didn't really mean it, but you said it.	
S: I don't know.	

Induction	Comment
E: Do you want to change it?	
S: Mmm.	
E: Try it. Say a number.	
S: Mmm.	
E: You can't say a number. Can you say the same one?	
S: Four.	
E: Let's give it a count.	
S: How much?	
E: Oh, just any count!	
S: 1, 2—oh no! [Apparently feels herself going in trance.]	
E: What's the matter?	
S: Nothing.	
E: Go ahead and count.	*H*: Why did she stop when you said that? I've forgotten now.
	E: I asked her to give me any number, to count—'1, 2, oh, no!' She suddenly realized that she was counting in the direction of 20.
	W: Yes, she felt herself going to sleep.
	E: Now when you want to prove something to a subject, and really prove it to them, try to let the proof come from within them. And let it come from within them in a most unexpected way.
	W: That makes it different. I tried it once with a very resistant subject. I had him tell his hand to lift. Now that wasn't unexpected but it would have been proof from within himself.
	E: Yes.
	W: And he was so very reluctant to tell it to lift. He didn't want to find out so he didn't want to tell his hand.
	H: When she said 'count to how much?' it apparently hadn't crossed her mind then?
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, [becoming more slow and inaudible. **Pause.**]	*E*: No, it hadn't. 'Oh, just count.' '1, 2, oh no.'
E: You really convinced *yourself* that time, didn't you, Sue? You really did, didn't you? Now you know, do you not? Now you know. And you really know it, do you not?	*H*: I remember now. She stopped overtly counting at about 17, and you waited until at that rate she would reach 20 and then you took a deep breath, wasn't that it?
	E: Yes.
	E: 'And you really know it, do you not?' What has been said that she really knows? At that particular time no specific thing had really been said. But I told her she knows. And it covers *everything* I have said. It's all inclusive. And she knows. And in trying to search for some specific thing she has to look over the entire situation.

Induction	Comment
E: And now, Sue, I want you to have the feeling, the very, very strong feeling after you awaken that you've been asleep for a long, long time. At least two hours. I want you to have the feeling that you have been sleeping for two *long* hours. Very restful, very comfortable, and you won't believe your watch. And you won't believe it, will you? [Pause.] Because after you awaken . . .	*W*: I notice you draw out all the words. *E*: 'And you won't believe your watch.' 'And you won't believe it, will you?' The suggestion [Firmly] 'And you won't believe your watch.' [Softly] 'And you won't believe it, will you?' That's the suggestion—'And you won't believe it, will you?' Literally hauling her over to join me. *H*: Yes, and the second one becomes a comment on the suggestion. *E*: A comment. A shared comment. *W*: I'm not quite sure I got that. 'You won't believe your watch.' Then what does the next one do? *E*: 'You won't believe your watch—and you won't, will you?' You see, it's a comment, and you're joining me on the comment as you listen to it. And when you comment on the suggestion, that suggestion is real; otherwise, you can't offer a comment. *W*: That's a thing we'd better think about, the matter of comment. And if there's no comment, maybe it isn't real. *H*: This is again, as far as we're concerned, meta-communication, which is communication about communication. *E*: Validate the suggestion by commenting on it. 'And you won't, will you?' 'And you won't believe your watch. And you won't, will you?' *H*: Was the phrasing, 'and you won't, will you?' the same as 'you can, can't you,' so if it comes to her mind, 'I will,' you had already said it? *E*: Yes. *H*: The same thing again. That's a nice one.
E: . . . you will know from your inner feeling that you have slept for two long hours. And you'll feel rested, refreshed. And now take it easy and just two hours have passed . . .	*W*: You mentioned that she'll know from her inner feelings that she'll be rested and refreshed, because she's had that two long hours of sleep. This, then, builds up the disbelief in the watch because what is so sure as one's own real feelings? *E*: One's own real feelings. *H*: Not only disbelief in the watch, but she would disbelieve in every watch in the room then. *E*: She had her feelings. *W*: She had her feelings, and you had one feeling validated anyway. She felt it was two long hours and she felt refreshed as one would if he slept two long hours. Each one supports the other.

Induction	Comment
E: . . . and you're really feeling rested and refreshed. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Wake up, wide awake.	
	H: Was there any deliberate hesitation in that count?
	E: You can never be consistent. You can never really count backwards from 20 to 1 or forward from 1 to 20 always in the same way. You ought always to use hesitation and emphasis. On that particular occasion I just threw in some, not for any particular purpose except to demonstrate that I can use variations whenever I please. And I don't ever want to get stuck by a subject learning a rigid pattern.
	H: I see, you mean, as the 'traditional' hypnotist does, a rote pattern that so many use.
	E: The rote pattern.
	H: I notice you hesitated on 12 and 8 there, was that all related to the 8 children and the dozen?
	E: Not that I know of.
S: I never did get through with that cigarette, did I?	
	H: That's a funny one. If she thought at that moment that she'd slept two hours, how could she make a comment like that about her cigarette.
	W: What did she say?
	H: 'I never did finish that cigarette, did I?' And it was burning there in the ash tray. Isn't that a contradiction.
	E: Sure, it's a contradiction.
	H: Is it only a little later that the realization it has been two hours comes over her?
	E: She was coming out of a disoriented time state. She started to smoke the cigarette when awake. A long trance state intervened. Two hours long. Then she awakened, re-oriented to the original waking state because there's an amnesia for having been in a trance. And a general feeling that time has passed.
	H: Wait a minute. When she said "I never did finish that cigarette,' was she then thinking that she had just put that cigarette in the ash tray?
	E: [Drawing] 
	There's your diagram. Now this upper line is a conscious memory line. But so far as she was concerned,

Induction	Comment
	consciously it was a continuum but with an underlying sense of time duration.
	H: Yes.
	E: This lower line is amnesic. But at the same time she has a feeling of the passage of time.
	W: Which then you develop a little bit as I remember by beginning to speak to her about time.
	E: Yes. Because she had to become *aware* of that long passage of time. Just as you're listening to a lecture and all of a sudden you realize, 'Oh my, I've been here longer than I realized.'
	W: It's a funny way to try to get it, but the shortness and the longness go together in some way.
	H: She had amnesia for the trance, but in the trance she was told to feel that two hours had passed.
	E: And that's her first initial awareness: 'I never did finish that cigarette.' You start asking your host a question, and an interruption occurs, and you've been enjoying yourself thoroughly, and then you say, 'I never did finish asking that question. Oh my, it's time for me to leave.'
	H: Yes, let's see how she builds that up.
S: You know, when I started counting, all of a sudden I only saw one eye. There was one eye over here.	
E: No eye over here?	
S: At first I was looking at both of them and then there was only one [referring to E's eyes.]	*E*: Her spontaneous development of a negative hallucination. She saw only one eye.
	H: Does that have a metaphorical meaning—'eye' in the sense of 'me?'
	E: Maybe. It would have taken time, had I thought of it at the moment. 'What happened to the rest of the room?' There was only one eye. A vague awareness of the rest of me, but only one eye. The vagueness of me, the absence of everybody else.
	W: I wonder if that has any relation to the importance of one in another sense. If she counted 'one' that's all right, but if she had counted 'two'—would she go into a trance?
E: What else happened?	*E*: No, because you get that one eye response in other situations.
S: Nothing.	
E: [Pause.] What happened the first time you counted, or started to count?	
S: Were there two counts? I only remember one.	
E: Didn't you start to count and then refuse to count?	
S: Yes.	
E: What's the explanation of that?	
S: I was afraid.	

Induction	Comment
E: What were you afraid of?	
S: A very funny feeling.	
E: How did that feeling come to you?	
S: I don't know.	
E: What was the feeling really like?	
S: Sinking.	
E: Describe it more.	
S: Oblivion.	*H*: That's a kind of contradictory kind of description, isn't it? Sinking, oblivion, fear, but very comfortable.
E: Anything else.	*E*: Now, did you notice her use of words?
S: It was very comfortable.	*H*: I thought I did. What about it?
	E: How can one describe partial conscious awareness of trance development? I wonder what the word 'oblivion' meant to her.
	H: Well, she didn't misuse the word 'fear.'
	E: It's out of context: 'comfortable-fear,' 'comfortable'—utterly contradictory.
	W: That's why Jay is raising the question.
	H: Fear, sinking, oblivion, but very comfortable. You don't think she could be afraid of the trance and feel it was comfortable at the same time?
	E: Yes, she could. But that's something I don't understand about oblivion and fear, and comfortable.
	H: And sinking.
	E: And sinking. Was she sinking into a nice, soft mattress? One of my patients always described it as sinking into a nice, soft, pleasing cloud, that floats so gently. A lot of them do, sinking in a very pleasing way.
	H: If it was so pleasing, she wouldn't have stopped at the count of two in that way, would she? She stopped startled, afraid.
	E: Startled? Afraid? 'Oh, no!' [Said softly.]
	H: You thought it was a pleased 'Oh, no!'?
	E: An attitude of complete astonishment.
	H: You mean a realization attitude more than a fear attitude?
	E: Yes. Utter astonishment.
	H: I just wondered if she started to say how she felt about the trance, that she was afraid of it and was sinking into oblivion, and thought this might antagonize you and so she said 'but it was comfortable.'
	E: I don't think so. I just wondered about her use of words.
E: Did T want to serve coffee now?	
S: I guess it is about time. How was the movie?	
T: Watching television.	
S: That late?	

Induction	Comment
E: Look at your watch.	
S: It's amazing! [Laughter.] The thing's stopped!	
E: Do you believe your watch?	
S: Well, it stopped three times today. [Laughter.] No, it's going. Unless it stopped during the time. What does your watch say?	
SOMEONE: 8:30.	
S: Does anybody else have a watch?	
ANOTHER PERSON: 8:30.	
S: 8:30?	
E: Can't believe **these** watches.	
S: Not very much. [Laughter.]	
E: What time do you think it is?	
S: Oh, about 9:30, 10 o'clock.	
E: And what all has happened this evening?	
S: Maybe you were talking to somebody else! [Laughing.] I don't want to miss it though.	
E: [Laughs.]	
S: Don't do that to me!	
E: You know, I have an idea you'd be a good subject!	*W*: There you say 'I have an idea you'd be a good subject.' This, now that she has done it—now your emphasis is on how about really doing something more
S: Nothing I want more in this world . . .	*E*: Yes.
	W: Whereas before, when you were getting her started, you were making the most of everything she did.
	E: Yes, but it's a little bit more than that. You are having a perfectly wonderful time. Then you say, 'I have an idea that we could have more fun.' This confirms the goodness up to the moment and offers still further promise.
S: I want to see the fawn that L saw.	
E: You would? That one or another one? Tell me, in Maine, haven't you seen a fawn?	*E*: 'That one—or another one.' She's going to have doubts; let's spread them, the doubts, I mean.
S: Every time I get near one —I never—I just see tracks.	*W*: Oh, the doubts now are not on will you see it, but on what one will you see.
S: Haven't you ever seen a deer?	*E*: Yes, she's got to have doubts. 'That one—or another one.' So I've split the doubt.

Induction	Comment
S: I don't think so. I hun't 'em, but I can't ever find them.	
E: But in Maine, haven't you ever seen a deer or a fawn?	
S: Not right up close.	
E: In the distance.	
S: Not that I can recall. That's right. I think I may have seen one once.	
E: Was it in *Maine*?	
S: I think I was passing by in a car, but I don't remember.	
E: On the right, or maybe left hand side?	
S: No, it was going across the road.	
E: Going across the road. Was it a wide road?	
S: No, a dirt road.	
E: A dirt road?	
S: Mmhmm.	
E: Was it dry, a dry dirt road? Were there stones in it?	
S: Yes, I think . . .	
E: Yes, there were stones in it. Were there trees along the sides?	
S: Yes.	
E: Yes. And look at it closely. And see it. And it's nice to see it, isn't it? Look closer. [Pause.] Look closely, quietly. Look. Look closer, quietly, before it goes away. See it clearly. [Pause.] Is it gone?	
S: I couldn't see it.	
E: You couldn't see it, look carefully. It's by that tree.	
S: It passed too quickly; just didn't see it.	*H*: Did she say 'It passed too quickly?' Did she mean the deer, or did she mean she was in the car?
	E: I think the deer.
	H: That's what I wasn't sure of last night. I couldn't tell whether she was going past too fast in the car or not.
	E: Now she had been in the waking state, and getting her to say 'Maine,' then again to say 'Maine,' and then my alteration in pronunciation of 'Maine,' and the very careful softening of my voice, and then to seize upon every clue.

Induction	Comment
	H: What was the alteration in the word 'Maine?'
	E: Was it in Maine?' I softened by voice very greatly.
	H: To start stalking the deer?
	E: Yes. And '*that* tree?' A very specific tree, you know.
	W: I noticed the whole series there, how with every utterance you duplicate an utterance and then—
	E: Add another statement.
	W: I understand.
	E: And I led her from the waking state into an hallucinatory trance state.
	H: And rapidly too!
E: Look again, beyond that other tree. Coming out. It's going quite fast. Look. Did you see the movement there?	
S: Yes, but I missed the deer.	
E: You missed the deer. See the movement, the swinging of the branch?	
S: It starts.	
E: You'll see it the next time, won't you? The next trance you get, you'll see it. [Pause.] Close your eyes and sleep deeply. Now take a deep breath. Sleep deeply. And wake up and tell me again about wanting to see the fawn that L did. Start the conversation on that . . . Wake up . . . Wake up. From 20 to 1, wake up. [Louder.] So you want to see the fawn that L did?	*E*: Future trances. She'll see the deer.[3]
	H: Why do you suppose she didn't this time? Is it tied up with L and the fawn?
	E: L seeing the fawn, her wishful thinking—she never had, she wished she could, she always got there too late, she hunted and she only found the tracks. And every time you miss seeing the fawn—next time you will see it. So I'm laying the foundation for a future trance. It moved too quickly, so I told her of the swinging of the branch. That was put in to validate that movement.
S: [Waking voice.] She saw it so clearly.	
	H: As I remember, you leaned back into the same position you were in just prior to her trance, didn't you?
E: What are some of the other things that you'd like to see?	*E*: Yes, I usually tend to do that. [That is, to use positions, movements, and remarks to establish and re-establish situations, both trance and non-trance.]
S: [Pause.] Nothing.	
E: Nothing at all?	
E: But you really couldn't see that fawn that L saw. That was on the Au Sable River.	

[3] It was later learned that she had never really seen a deer in Maine.

Induction	Comment
S: I never even heard of it before.	
E: Where else besides Maine have you been?	
S: New York, California. I was in Florida a little while.	
E: You say you go hunting.	
S: Yes.	
E: Where have you been hunting?	
S: Out here.	
E: Kaibab Forest?	
S: No, we don't go for deer, just dove and quail. Lots of fun.	
E: I like to eat them.	*E*: To emphasize the ordinary, casual situation, 'I like to eat them.' A highly personal statement, unrelated to the total situation. 'I have to clean them.' A highly personal thing, unrelated to that total situation. So she's really wide awake. My introduction of 'I like to eat them,' cleared the way for a completely full awakening.
S: I have to clean them, if I kill them. You like to clean them?	
E: I do.	
S: And oh, there he goes [the fly], on your nose. [S and E join in hunting the fly, but miss.]	
S: That's so—a hunt.	
E: You know, I prefer to get them seven at a blow.	
S: *Sept d'un coup?*	
E: You want to go deer hunting?	
S: I don't think so. I don't think I could kill one.	*E*: I missed an opportunity there. 'I don't think I could kill one.' I missed a cue there as far as the trance was concerned. 'You'd rather see one' should have been my response. I missed it and felt badly afterwards.
E: Haven't you ever seen any—deer, when you—	
E: There [referring to fly.]	
S: Please, please [pursuing with fly swatter.] Here he is. This is really a big home. In my home you can corner them.	
E: When was the last time you were in Maine?	
S: Last summer. If it's on me, don't worry, you can hit me. He's young. Got a lot of energy. There he is! Now he's back behind you.	
E: Doggone that fly. [Pause.] When was the last time you were in Maine?	
S: Last summer, June 19th.	

Induction	Comment
E: Did you ever go up in the woods at all?	
S: No, I was with the children, right in camp.	
E: And that's where you learned your driving, is it?	
S: Yes.	
E: How old were you when you learned to drive?	*E*: Did you realize that I was building up there in asking her about how old she was when she learned to drive a car. I was building up very carefully for an hallucination, a recovered memory of a long time ago. It seems to have been done very slowly, casually, and yet essentially it was done very rapidly.
S: Oh, 15 or 16.	
E: And you had so little mercy on the boys there that you tried to run 'em down?	
S: Oh, that was just teasing. I was always teased at camp because I was the only girl in a boys' camp.	
E: So you learned to drive a car at 16.	
S: Yes, I learned a lot of things in Maine.	
E: And everybody rushed for the canoes?	
S: They didn't, really. They only . . .	
E: They stood up.	
S: Yeah, that's what the K's were telling them all.	
E: How many boys were there at the camp?	
S: Then, oh, I think—about 40, 45, maybe. Now it's much bigger.	
E: I see.	
S: Now they've got 120.	
E: A hundred and—*twenty*.	*H*: She had to say twenty, didn't she? She said '120 boys in camp' and you said 'a hundred and—twenty.'
S: Mmm.	
E: [Pause.] A hundred and *twenty*. Take a deep breath. Because I want you to do something. And you can *remember* that camp. You saw that camp many times. And, as you think back, you can remember this boy and that boy—when you were 16. And you can look at your memory of that camp. And as you think back, you can recall this boy, and that boy, when you were 16. And you can look at your memory of that camp.	*E*: And as you think back, you can recall *this* boy and *that* boy. *H*: Oh, by your movements you were setting them up? *E*: Setting them up. *This* boy. *That* boy. Rolling back a bit. [Shifting position in chair.] *E*: 'And you can look at your memory of that camp.' 'You can' implies 'you can *now* look back.' And there I'm looking. It implies *now*.

Induction	Comment
	H: Did you select boys to look at on the basis of her phrase, 'I learned a lot of things in Maine'?
	E: No, her statement was that she had been in that camp. The counselor always told the boys 'take to the cliffs, she's going to drive.' So there you've got an emotional memory. I believe her family owned the camp.
	H: Well, you have, particularly when you said 'you learned to drive there' and she said 'Yes, I learned a lot of things in Maine,' implying something else that she learned there. I just wondered if that was in the background of this a bit.
E: And I want you to see if there was grass around there. Was there a beach? Was the water smooth? Were there really trees there? Were they green? And look, and look up there and see a canoe, or see a boy, or see the beach, or see the water. You're beginning to see, and I want you to recognize one of the boys who was *there* when you were 16. And you can do that. See him plainly, clearly, and I want you to point to him. Point to him, and slowly your hand moves. It's going to point to him. And look—and see. Take your left hand and point. And point to him. That's it. That's it. Move your hand and point to him. Move your hand and point to him, and *see him* more and more plainly, and you can point. Are you pointing? Nod your head when you can see it shaping. Are you pointing? Are you pointing? [Pause.] Sleep deeply. [Long pause.]	
	H: Notice my suggestion to point, 'take your left hand and point,' because I knew I was getting into deep water there, that is, severe difficulties.
	H: Why deep water?
	E: Very deep water, because she wasn't making adequate response to me. So then I narrowed it down, 'take your left hand and point.' I knew I was getting in deep water there. I didn't know exactly what it was. I asked her to point. Her hand didn't point, so then I started narrowing down. Have her point with her left hand. When she failed to do that, I knew how deep in the water I was. Go ahead.
	E: The deep water I was in was that I was out of contact with her. She was back there [Regressed spontaneously].
	E: I made awfully sure of it, then I verified it by trying to get her to move her left hand to point, then I verified it by trying to get her to nod her head. I got no response at all.
	H: I remember wondering why you couldn't get any response from her on that.
	E: Because I wasn't there. She was there [in Maine, in regression]. Out of touch with me. She had drifted into that at the sound of my voice. I kept on. And you noticed that my voice went down and down and

Induction	Comment
E: And after you awake you will recall one of the boys you haven't thought of [Pause] for a long time. You will tell me about him, will you not?	down [in volume]. So that I could lead into a silence. Go ahead. *E*: Now how did that begin? [Referring to tape record.] *W*: 'And after you are awake, you will recall.' *E*: A long pause. Soften the voice, a long pause, and the introduction of my voice saying something I had said before, 'after you are awake.' I gave her a long enough time to look at that boy. Then I used the words 'you will recall the boy you haven't thought of for a long time,' and if she hasn't thought of the boy for a long time, she can't possibly be back there in Maine. *H*: That was your way of bringing her out of it? *E*: Yes. *H*: Why didn't you want to regress her and have her there, and use that? I mean, make contact with her there? *E*: You have to lay the foundation; I hadn't laid the foundation. Because I didn't want to lose her, and I had lost her there for a little while. Then I had to resort to silence, then begin with a suggestion I'd given before, and match it with 'not for a long time.' *H*: Suppose you had said, 'Who am I?' or brought yourself into it somehow back there, even without the foundation, what would happen? *E*: I'd probably have been a counselor. *H*: Well, what foundation should have been there that was absent, so you didn't want to do this sort of thing? *E*: My voice is my voice; it's really not me. My voice can be heard with a phone. It can be heard on a tape recording. My voice can be heard in places where I'm not. And you could hear my voice in Florida, New York, California, Kaibab Forest, if you were ever there. *H*: If you had done that earlier, you could have maintained contact while she was back there? *E*: Yes, but I would have been a voice, and my voice could have been transformed into a counselor's, into her father's or mother's, and very often I've been identified as father, mother, uncle, aunt, cousin, the neighbor, teacher. *H*: That's partly, too, why she referred later to how she was alone in Maine? *E*: Yes, I wasn't there. Now if I'd laid my foundation, I could have been the voice of someone there talking to her. And that's difficult work because you have to use such very general questions that can be interpreted in terms of the people in that situation. I've had subjects comment on the screechiness of my voice, 'My teacher talked to me and that screechy voice of her's is still ringing in my ears,' and then repeat the things I had said. Too many operators, when they lose contact, fail to go right on as if they hadn't lost contact, lower their voices, and make use of silent techniques. Then slowly come out of it by utilizing previous utterances. And

Induction	Comment
	then throw in something that nullifies the regressed state.
	W: By lowering your voice down to the pause, then in effect you join the loss of contact, too, and take that over.
	E: Yes, because I've been training her all evening to accept and respond to my silences. I'd be curious to find out how long that visit she made was. It might have been an hour or two.
E: [Long pause.] Sleep deeply, and now awaken. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Wake up. And I still haven't got that fly.	
S: Oh!	
E: I hope you have better luck with your doves than you are having with this fly.	
S: I hope so, too.	
	H: Is that amnesia again?
	E: Yes.
	W: Which you provoked with the reference to the fly. Your reference to the fly there is similar to her reference to the cigarette before.
	E: Yes.
	H: Do you usually calculatedly remember what was going on just before you started the induction, so you can set that up again afterwards?
	E: I try to. And it really promotes amnesia.

External circumstances caused an interruption of the commentary at this point, but further analysis would have served only to emphasize, with variations and modifications occasioned by the immediate intrinsic circumstances, the understandings already elaborated. It may be added that henceforth Sue was a competent subject, capable of all phenomena of the light and deep trance, including even the plenary state.

To summarize, a tape recording was made of a spontaneous and unplanned hypnotic induction of a somewhat resistant subject who had failed on three previous occasions to develop a trance and who believed that she could not be hypnotized. The next day this recording was played back by the authors, with many systematic interruptions to permit a point-by-point discussion and explanation of the significances, purposes, and interrelationships of the various suggestions and maneuvers employed in developing the subject's hypnotic responses. A transcription of a second recording, made of the entire procedure, constitutes this paper.

This discussion was initiated by Jay Haley and John Weakland as part of their research on the Communications Research Project directed by Gregory Bateson. The project was financed by the Macy Foundation, administered by Stanford University, and located at the Veterans Administration Hospital in Palo Alto, California. The "double bind" mentioned in this paper is discussed in "Toward a Theory of Schizophrenia," *Behavioral Science*, 1, No. 4, 1956.

BRIEF CLINICAL REPORTS

(Editor's Comment: There is much to be learned in every aspect of psychological and somatic interrelationships. Much of this learning must necessarily come from patient, carefully planned, long-continued studies that eventually constitute the reports of clinical progress recorded in the scientific literature.

But another, and equally important, share of clinical learning must necessarily come from small, incidental or unexpected findings and observations, indicative of new or different possibilities and understandings but not sufficiently important in themselves to warrant separate scientific report. Many of these learnings are isolated findings whose importance is not recognizable until discovered again and again and in differing relationships. But, even so, they constitute the cumulative wealth of clinical experience. It is with this thought in mind that this JOURNAL *will, from time to time, publish accounts of special clinical findings and observations to make them available to others and to stimulate more extensive considerations of clinical possibilities. That they are not planned and controlled and carefully governed observational findings is fully recognized, but as meaningful indications of possibilities in future thinking and investigation they are of definite value.)*

OBJECTIVE TINNITUS AURIUM HYPNOTICALLY TREATED

by E. E. Mihalyka, M.D.,[1] and A. D. Whanger, M.D.[2]

Objective tinnitus aurium, while rare, is well known. The theories and types will not be detailed here; they are basically the vascular and the non-vascular. Freund(1) recently presented a case with clonus of the palate and described the possible neuroanatomy. Pearson and Barnes(4) reported two cases apparently almost identical with the one cited below, and they reviewed the rather scanty literature on the subject. They recognized the clonic contraction of the palatine and eustachian tube orifice muscles as a tic phenomenon and successfully used hypnosis in its treatment. Motta and Profazio(3) report a similar case, which they treated by alcohol injection of the trigeminal nerve. Our case is as follows:

T.D.L., 36-year-old white male, was first seen by us in September of 1957 because of a complaint of clicking in both ears. The patient had been a bomber pilot for two years, 1942 to 1944. In the year following his discharge he began to have intermittent episodes of fullness in his ears and a clicking sound, over which he had no voluntary control. By 1949 the clicking had become constant during his waking hours. The patient's wife stated that this sound was loud enough to awaken her on occasions, and people near the patient often looked around for the source of the noise. With the onset of the clicking, the patient had noted an increasing "nervousness." He stated that he had seen "dozens of doctors," including a psychiatrist, and had been hospitalized for medical and psychiatric treatment, all without relief of the clicking. The patient had also noticed occasional episodes of light-headedness and nausea and also that an upper respiratory infection would aggravate his condition. The only thing that would slow down the clicking, even temporarily, would be Valsalva's maneuver (forcible exhalation against the closed glottis).

Physical examination showed an anxious, agitated, cooperative male. The head was non-tender and without bruit. The nose was clear. The drums were thin bilaterally, but moved and had normal reflexes. No other pathology of the drums was observed. There was an audible clicking heard, especially on the left, accentuated by swallowing, but continuing without it. The hypopharynx was normal, and the oropharynx had an overactive gag reflex, but no eustachian tube obstruction. The re-

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mainder of the examination findings were within normal limits. Mastoid and sinus x-rays were interpreted as normal. An audiogram showed bilateral decibel loss of 10 up to 2,000 cycles but a drop of 40 decibel loss at 4,000 cycles. He was placed on dehydration regime with antihistamine and meprobamate, with slight lessening of the clicking. Then phenobarbital and later chlorpromazine were tried, with again some decrease in frequency. However, when these three medications were each discontinued, the symptom of clicking resumed its original frequency. He returned to his job and when seen three months later had become much worse, even on tranquilizers. He stated that this clicking made him so nervous that he could hardly work. Detailed questioning disclosed only diffuse anxiety.

Re-examination revealed an irregular clicking, which could be heard up to two feet from the patient's head, about 90 per minute, and asynchronous with the pulse. Palpation of the soft palate revealed spasmodic contractions synchronous with the sound, which could also be produced at will by swallowing. The sound resembled the snapping of fingernails and was recorded on a standard tape recorder. It was explained to the patient with diagrams that the spasms of the muscles of his palate and eustachian tube produced the tinnitus and that, if he could learn to relax properly and then to focus his relaxation, he could help himself. Both an eye fixation and a hand levitation technique of trance induction met with some unconscious resistance initially, but a moderate trance was achieved in about 90 minutes. Four trances, totaling 150 minutes, were used. Although no suggestion regarding the clicking itself was made until the fourth session, the patient spontaneously noted improvement from the very beginning, so that, by the third session, the tinnitus had completely stopped for the first time in nine years. He was taught a method of autosuggestion to obtain relaxation and to control the tic, since it was anticipated that it might return periodically, inasmuch as no attack was made on the basic anxiety of the patient. He remained tinnitus-free for 48 hours and was discharged. A follow-up one month later revealed the condition to be "improved," so that the clicking was present only when the patient was under particular emotional stress. He stated he was able to control the tinnitus most of the time by the method of autosuggestion taught to him.

COMMENT

This case of objective tinnitus, while being an unusual phenomenon in itself, demonstrates the possibility that a certain number of psychosomatic disorders may present themselves in the otolaryngologist's office. The basic treatment of these cases must be psychiatric, but a certain number of these individuals will fail to respond to the more usual forms of therapy or will not have such help available, and yet will have signs and symptoms which in themselves are disturbing and disabling to the patient. Hypnosis, limited deliberately to specific symptom and tension reduction, is sometimes a potent and readily available tool for those who must handle this type of symptomatic problem.

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TONSILLECTOMIES UNDER HYPNOSIS: REPORT OF CASES

by E. E. Mihalyka, M.D.,[1] and A. D. Whanger, M.D.[2]

There is a growing volume of literature on the uses of hypnosis in anesthesia, dentistry, obstetrics, medicine, psychiatry, and research. However, review of the recent literature reveals few reports of its use in otolaryngology. The following cases illustrate the procedure and the value of hypnosis in two instances of tonsillectomy.

Case 1

L.J.M., a 21-year-old male, suffered from recurrent tonsillitis for one year. Physical examination revealed moderate hypertrophy of the tonsils, more on the left, but no acute inflammation. The patient was prepared for hypnotic induction by first explaining to him the benefits of deep relaxation. The initial induction of hypnosis was accomplished by a hand levitation technique, which took 20 minutes. While in the trance, the patient was given a cue (touch on the shoulder) for future rapid re-inductions. On three subsequent occasions the patient was hypnotized and suggestions for relaxation and general well-being were given, together with an explanation of the operative procedure. A direct suggestion was made that he would be completely comfortable during both the entire operative procedure and the post-operative period. A total of 55 minutes was used for trance induction, during which time the use of the word "hypnosis" was deliberately avoided with the patient. To test trance depth, post-hypnotic suggestions for glove anesthesia and positive hallucinations were successfully given. Routine pre-operative medication of atropine, demerol, and phenobarbital was given. On arrival at surgery the patient spontaneously remarked how much more relaxed, comfortable, and confident he was at this time than he had been for an appendectomy two years previously. He complained of mild nausea, but this was removed by suggestion. The trance was induced by the established post-hypnotic cue after the patient had been seated in the operative chair and suggestions had been given for relaxation, numbness, and comfort of his throat during and following the operation.

The bilateral tonsillectomy was carried out with no further medications or anesthesias. There was no technical difficulty or gagging, and bleeding was minimal. The only sign of discomfort was a slight wrinkling of the patient's forehead when the left tonsil had to be sharp-dissected in an area of scarring when the tonsils were snared. During the operation the patient was apprised progressively of the operative procedure. Special simple suggestions were required for the tongue-retractor retention.

Post-operatively the patient was ambulatory on the day of operation with no discomfort. At no time during his post-operative period did the patient request or receive any analgesic or sedation. His only complaint was a bilateral "sensation" in his ears on the fifth post-operative day, although no drum pathology was seen. When asked about his operative procedure just before discharge, the patient stated "everything seemed to be fine."

Case 2

O.L.F., a 24-year old male, had a history of repeated tonsillitis and at least two previous peritonsillar abscesses. When admitted he had cryptic tonsillitis and some injection of the anterior pillars. The general hypnotic procedure was essentially the same as with the first patient. The total pre-operative trance time was 50 minutes. No pre-operative medication was used, except 60 mgm. of phenobarbital. No anesthetic was used until toward the end of the removal of the first tonsil, when the patient began to become somewhat restless, although exhibiting no real pain, and salivary secretion became excessive. A total of 4 cc. of 2% procaine with epinephrine was used for anesthesia of the remaining areas, and the operation was completed without further difficulty.

Post-operatively the patient did very well, requesting no analgesics until the fourth post-operative day, when he developed a headache. On the sixth post-operative day he had some slight bleeding and pain associated with the separation of a portion of the slough. There was no renewal of hypnotic suggestion for pain relief following that made at the end of the

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operation. Ward nurses commented spontaneously on the patient's apparent relaxation and comfort.

COMMENT

These two case histories illustrate the value of hypnosis in reducing and even eliminating pain. Over many years, suggestion has been used as the sole anesthesia for virtually every surgical procedure by many different operators. Perhaps much more practical than replacing standard anesthetics is its usefulness in reducing required amounts of the usual medication (in the one case to about one-fourth) which is, of course, valuable protection to any patient, but especially to the poor risk and to the allergic patient. The post-operative morbidity, discomfort, and drug-dependence can be drastically lessened in many cases, as illustrated above.

LIBIDO ALTERED WITH THE AID OF HYPNOSIS: A CASE REPORT

by R. V. August, M.D.[1]

This is a case report of a 37-year-old white female whose libido was successfully altered with the aid of hypnosis.

She has been married 20 years, has four children aged 19, 15, 13 and 4, all living and well, and would like to again become pregnant. Her past history is negative except for a diagnosis of endometriosis, which was established following a dilatation and curettage done under hypnosis in January 1958. This surgery, done for the control of meno-metrorrhagia of six months duration, was successful.

Her subsequent chief complaint, not previously discussed, was an unsatisfactory libido. Her experience for the last four years has consisted of intercourse once or twice a week with her husband. These contacts culminated in a climax about once to his ten.

Age regression under hypnosis established the responsible traumatic psychologic factor, her four-year-old child's serious illness in infancy. This was subsequently explained to her. She was then advised that she would no longer be bound by this problem and that she would very likely begin to make up for lost time.

I saw her again on May 28, at her request. With considerable ambivalence she told me that she was having intercourse at least six to eight times a week, with a climax every time. At this time she requested aid in lessening her libidinous desires.

She was directed into a deep hypnotic trance and was permitted to experience intercourse three separate times, separated by one-minute periods of rest. She was advised that she would have a climax each time, that each experience would be more gratifying than the previous one, and that the last would be so pleasing that future experiences would be unsatisfactory by comparison.

On June 11 she was again seen at her own request. She related a total loss of libido and requested a change. Under deep hypnosis she was advised that she could adjust her libidinous desire and potential to those of her husband and that she would experience a climax with every sexual experience with him.

On June 25 she was seen at my request. She stated that her libidinous desires and capacity for fulfillment now fitted perfectly into her own psychological framework. She was having intercourse three to four times a week and enjoying a climax each time. Under light hypnosis, without her knowledge, I recorded an interview in which she reported all the foregoing and in which she described her phantom experiences with intercourse under hypnosis. Several weeks later I obtained her permission to use this tape recording for educational purposes.

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NOSEBLEED CONTROLLED BY HYPNOSIS

by J. Wesley Edel, M.D.[1]

Mentioned, but seldom published, are reports of severe nosebleeds brought under control by hypnosis. There are no unique methods and there is no esoteric terminology. The case presented is unique in the nature of its demonstration of the simplicity and effectiveness with which hypnosis can be utilized in epistaxis and the unexpectedness of some of the results of its application.

P.A.G., a white male, aged 10, was brought to the office because of a reading problem which made it necessary for him to have extra tutoring in order to keep two grades ahead of his eight-year-old sister. He was seen eight times therapeutically between November 8, 1956, and January 25, 1957. Each interview lasted from one-half to one hour. His problems centered around the usual conflicts one has with a younger sister and his feelings of frustration, inadequacy, rejection, etc. After the first visit, there seemed to be no evidence of severe behavior problems, so the remaining interviews were conducted with the patient largely in trance. He was an excellent somnambulistic subject and gained insight much more quickly at this level. During the course of his therapy his sister was seen on two occasions and found to be an extrovert, uninhibited, brilliant, suggestible, an excellent hypnotic subject, with a personality overshadowing that of her brother. By January 25th his reading problem had disappeared entirely, and he no longer needed tutoring. From then on he kept up with his class without difficulty. On March 9th he was brought into the office because of a severe nosebleed that could not be controlled. He had been bleeding from both nostrils and the postnasal hemorrhage had been so severe that it had produced some nausea and vomiting. He was pale, frightened, and had apparently lost a great deal of blood, but he was not in shock.

Bilateral anterior nasal packs with Wyamine Solution were used first, to no avail. The postnatal bleeding only increased. Just as preparations were being made for a bilateral nasal pack, which I have only used on two occasions previously in my practice, I remembered that hypnotic patients may show altered bleeding behavior while in trance.

I was just about as frightened as the patient was, because I do general medicine and not eye-ear-nose-throat, and he had lost a good deal of blood. I put his head back while the nurse was removing the blood-stained instruments. The patient was then told that he could stop this bleeding all by himself, that all he needed to do was to hold his head "way back" and to remember how relaxed he always was in the office during interviews. He closed his eyes spontaneously and took a deep breath without any further suggestion. His shoulders dropped an inch or two and his arms and hands assumed a loose, relaxed, heavy position. He breathed rapidly for a brief time and then went into a deep trance. I expected to see him swallowing blood, since it had been flowing quite heavily, but instead I was astonished to see that there was no swallowing and that the blood in his nostrils seemed to become coagulated almost immediately. He breathed easily for the first time since he had come in. When his head was placed forward, he immediately seemed to develop a deep, somnambulistic trance. Not a drop of blood spilled from his nostrils, and he seemed to be comfortably relaxed. Posthypnotic suggestions were given relative to his ability to blow his nose in an hour from the time he left the office without causing any further bleeding.

The next morning his family reported that his nostrils were completely clear and that there had been no more bleeding. It must be remembered that this was an exceptionally well conditioned subject. Whether an initial hypnotic induction could be this easily accomplished under these conditions cannot be said.

The family shortly thereafter drove to Florida, taking the two children on the trip. En route the patient's eight-year-old sister developed a severe nosebleed. The mother later reported that, employing a technique he had incidentally learned from his own experience, the boy induced a fairly deep hypnotic trance in his sister and

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arrested her nosebleed. The parents had been alarmed by this trance development, but had been comfortingly reassured by their son, who explained that after his sister had rested about five minutes he would arouse her, and this he did. The family trip was continued without further difficulty for either of the children.

One point of interest stressed in the mother's report was that the nosebleed incident and the hypnosis of the sister by the brother had in some way effected for the two children a markedly warmer and friendlier relationship than had ever existed previously. This, inquiry has disclosed, has continued.

DISCUSSION AND CONCLUSIONS

1. In using hypnosis with children, it would be desirable to impress upon them that the procedure is one belonging properly to the healing arts and should not be used by them.

2. In certain cases of epistaxis, hypnosis may prove to be an effective therapeutic measure.

3. A hypnotherapeutic relationship within a family group conceivably might offer possible significant psychotherapeutic values.

AN INSTANCE OF PSYCHIATRIC COMPLICATIONS IN OBESITY

by Harold A. Pooler, M.D.[1]

The following account is offered as an illustrative instance of the need to employ clinical medical judgment and procedure as a prerequisite to the use of hypnosis for some specific requested purpose, in this instance, obesity.

The patient was referred for simple direct hypnotherapy for obesity. She was informed that hypnosis should not be used indiscriminately for such purposes and that her full co-operation would be required for an adequate medically oriented procedure. She consented and readily gave an anamnesis as a preliminary to hypnosis. She was then given a general orientation in hypnosis, a trance was induced, and she was found to be a good subject.

In the trance she was instructed to restate her problem in any informative way she wished. Shortly she burst into tears and then launched into an unhappy story, which may be summarized as follows:

She had a younger sister, the parental favorite, whose every action was approved although similar behavior by the patient evoked reprimands. Despite her mixed feelings and a sense of inferiority, she was greatly attached to that sister and strove to emulate her in act and dress. The sister joined the Air Force, traveled extensively, and was awarded many service ribbons. However, about two years ago the sister died of acute nephritis, and, just previous to the interment, the patient, with the aid of the undertaker, surreptitiously acquired the service ribbons, still her secret possession. Following the funeral, the sister's automobile, dresses, and shoes were presented to her by the parents. The patient explained further "There is a legend about me that I'm easy-going, and no one thinks I have problems." (Cries.) "I am very tense, feel neglected and forgotten . . . When I go to my sister's grave I want to be alone, but someone is always with me. . . . When I drove my sister's car, I felt like a fraud. . . . I felt the same about using her shoes and clothing. I don't want them. . . . My legend is that I'm a super-woman. They expect me to do everything perfectly. I never get approval from my father and mother. I want them to be proud of me. They didn't want me to marry Charles. They would ask me, 'How did an old witch like you get a good husband?' When I had my first child they objected, but after it was born they said that the child could not be credited to me. . . . They were always proud of my sister Caroline. She was thin and wore 16-size dresses. Why am I so fat?"

During a subsequent trance state, while crying and telling more of her story she stopped and said, "Maybe I haven't wanted to wear my sister's shoes and clothing. Is that why I am so big?" The answer was offered that it was a possibility. She immediately became calm and began to discuss the situation.

Just before this trance state was terminated, she was asked, "Is it possible that

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you have realized all along that you had a severe emotional problem, that you needed to consult a psychiatrist, and that you took the weight reduction idea to get in the 'back door' to see me?" She agreed that this was very possible.

She has been seen for six hypnotherapeutic sessions, and during these sessions weight reduction has been mentioned only in conversation. No post-hypnotic suggestions have been made relative to it, except to say, "Perhaps your weight will reduce now that your emotional difficulties are solving themselves."

She has consistently lost weight, now weighs 160 instead of 187 pounds, has given away all her sister's clothing and two dozen pairs of her sister's shoes. She has rationalized her possession of the sister's ribbons, and she no longer feels particularly attached to or guilty about them. She is calm, relaxed, and contented with herself.

In summary, this case, which is not isolated in character, suggests the need for caution in using hypnosis as a direct means to weight reduction and the desirability of psychiatric supervision in many problems of obesity.

A BIBLIOGRAPHY OF HYPNOTISM IN PEDIATRICS

by André M. Weitzenhoffer, Ph.D.[1]

I am occasionally asked by various colleagues to furnish them with bibliographies on various aspects of hypnotism. It was just such a request which led me recently to make up a list of articles and books on the uses of hypnosis in pediatrics. It has occurred to me that readers of this Journal might have use for such a bibliography, hence its present publication.

No attempts have been made here to list works on hypnotism of a more general nature in which references are made to pediatrics. I believe this bibliography contains the most important articles and books published to date in this specific area. If any reader has knowledge of additional references not listed here I would greatly appreciate hearing from him.

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BOOK REVIEWS

Galina Solovey and Anatol Milechnin. *El Hipnotismo de Hoy.* [Hypnotism of Today.] Buenos Aires: Ediciones "Dyaus," 1957. Pp. 286.

By H. D. Prensky, D.D.S.

In the face of the steadily increasing interest in medical hypnosis and its applications in the countries of Latin-America, the appearance of this book in Spanish is most welcome. The last two years have been a period of great activity, in which papers on hypnosis have been presented at many of the most important medical and dental conferences south of the border and which saw also the organization of a number of training courses given both by experts from the United States and from some of the Spanish-speaking countries, notably Argentina.

For those Latin-American practitioners who read English with facility, the follow-up period is a rewarding one, in that the literature in English can be obtained without too much difficulty. For those non-English-speaking beginners, however, the field has been severely limited. Hardly any of the standard works written in English have been translated. Of the few books written in Spanish, the only one that is receiving any distribution, the excellent book by the Argentine dentist E. F. Duprat (*Hipnotismo: Técnicas e Indicaciones Terapéuticas,* Buenos Aires, 1956) is almost exclusively a manual of technique. To one who is currently engaged in teaching groups of physicians, dentists, and psychologists in Spanish this situation presents a considerable problem in that little can be suggested to the student by way of practical self-study following conclusion of the course.

Drs. Solovey and Milechnin are a husband-and-wife team practicing medicine in Montevideo, Uruguay. They are both known to our readers, since they have had some 20 articles published in English, including a rather long one on Hypnosis in Dentistry in the October, 1958 issue of this JOURNAL. Dr. Solovey is one of the corresponding editors of the JOURNAL and in 1954 spent some time in the United States pursuing advanced studies with a number of the outstanding figures in the field of clinical and experimental hypnosis. Her work is mainly with children, and she is a fellow of the American Academy of Pediatrics and Chief Physician of the Children's Out-Patient Clinic of the Government Health Department. Both husband and wife are Russians by birth, the wife being brought to Uruguay in 1924 when she was a child and the man who was later to become her husband arriving there after the Second World War.

Their book is by and large the elaboration of their own particular theory and approach to hypnotherapy. The cornerstone of this theory has been stated by them many times in their long series of articles and appears as the opening sentence in the aforementioned article on dentistry. They state, "Hypnotism does not constitute an anomaly of behavior, but an integral part of the human being's normal psychological life, from birth to death."

They go on to claim that it is the hypnotic state itself and not any specific suggestion which is responsible for the many types of success reported in medical, dental, and psychological therapy. For them, contrary to the beliefs held by most workers in the field, suggestion plays a very minor role and the factors which are really responsible for the establishing of the now classical hypnotic phenomena are the relaxation, psychological retrogression, and consequent restoration of emotional balance that results from induction of hypnosis or, as they put it, the transference to the therapist of an already induced autohypnotic state. From the same point of view, they reject all attempts to measure hypnotic depth as being invalid and based on a false understanding of the actual nature of hypnosis.

Their book itself begins with an interesting survey of the history of hypnosis. This contains a great deal of valuable information on the activities of Mesmer and his followers as well as of the mid-nineteenth century English pioneers, such as Elliotson, Braid, and Esdaile. There is also a fairly detailed account of the work of Liébeault, Bernheim, and Charcot, with some elaboration of the controversy between the Nancy and the Salpêtrière Schools. It is surprising, though, that there should be no mention whatsoever in this historical section of the name of Sigmund Freud, an omission that is particularly strange since the authors practice psychotherapy.

In the second chapter, on the nature of the hypnotic state, the authors enter imme-

diately into the presentation of their own special theory. They emphasize at once that not only is the hypnotic state normal but it appears very frequently in the course of our daily relationships with other people. As a starting point they postulate that the primary hypnotic relationship is that of the child with its mother or with mother substitutes. This primary hypnotic relationship they define as "that particular emotional state that takes place in the child when he receives the caresses and lullabies of his parents when he needs them (positive hypnotic state) or the emotional state that a child experiences in the face of the stern and authoritative attitude of his parents (negative hypnotic state)." As can be seen, the basis of this theory has a close kinship with the earlier maternal-paternal theory of Ferenczi, which lies at the core of the psychoanalytic explanation of hypnosis.

This chapter is well documented with studies from the pediatric literature on the importance of emotional stability and the receipt of parental love in the physiological and psychological development of the child. Basing their thinking on the dictum that the younger the child the greater is the interdependence between body and mind they make two important points. One is that only through this primary hypnotic state can the infant maintain his health and continue developing in the face of the barrage of traumatic experiences in his daily life. Second, that the capacity to enter a hypnotic state is innate and that the operator does not impose this state on an adult subject but simply helps him to redevelop in himself the process that was originally induced by the caresses and soothing tones of the mother.

To support this point of view, some interesting cases in a contrary sense are cited. For example, they give the experience of Frederick I of Prussia who, in their words, wishing to produce a strong race ordered that the babies in a royal children's home receive good food and physical care but no affection, with the tragic result that all of the babies died. Similar findings from the writings of such contemporary investigators as Spitz and Ribble are used to further substantiate this claim of the basic survival value of the primary hypnotic relationships.

Carrying this thinking a bit further, the authors state that our daily lives are filled with examples of hypnotic relationships which can be fleeting or enduring and that these constitute the basis for the hypnotic experiences in the therapeutic setting, the experimental laboratory, and the theatre. To underscore the similarity between these everyday hypnotic experiences and the hypnosis deliberately induced, a comparison is made between the observations of Dr. Milton H. Erickson and the advice given by Dale Carnegie in his "How to Win Friends and Influence People." Although this small section has its points of interest, it has the appearance of being pasted together with some random quotations, and in its overall effect it is neither very convincing nor very carefully worked out. The quotations from Erickson, for instance, are not documented, and it is impossible to know from the text whether they appeared in his writings, in the course of lectures, or as casual remarks dropped during a personal conversation.

What they call a principal hypnotic relationship is one that is constantly reactivated, such as that between the child and his parents. The hypnotic relationships that are maintained for a short time are called secondary hypnotic relationships, and each of these types may be converted into the other. They mention also the state of auto-hypnosis which, according to their concept, is brought about by impersonal factors, emotionally significant for the particular person during the period of the establishment of his conditionings, which upon their reappearance activate again a chain of past associations. Under this heading they list sounds, smells, colors, etc.

Following this defining of terms, the writers proceed to adduce evidence to support their claims about the nature of hypnosis. Having asserted that the deepening of the trance represents a psychological retrogression to an earlier level of development, hypnosis itself being a reinstating of an infantile situation, they point to a long series of comparisons between the behavior of children and infants and the behavior of subjects in somnambulistic and stuporous trances. Without citing authority for it, they claim that the somnambulistic trance corresponds to the psychological functioning of the child from one to three and that the stuporous trance corresponds to that of the new-born baby. In the course of this, they quote one minor point from Kubie and Margolin's well-considered article ("The Process of Hypnotism and the Nature of the Hypnotic State," *Am. J. Psychiat.*, 1944, **100**, 611-622) but, apart from this, they call on no other outside support for this theory.

The comparisons they make are attention-compelling ones, but they cannot be considered convincing scientific proof. They

point to the child's spontaneous behavior, his lack of inhibitions, the literal way in which he takes the things he is told, his weak sense of humor, and his ability to concentrate his efforts toward the realization of a limited goal and propose that this is exactly true also of the subject in a deep trance. They draw comparisons in the same way between the vividness of the child's imagination and that of the deeply hypnotized individual; the similarity between such features of the child's behavior as photographic vision, hallucinations, and uncritical acceptance of statements made by authorities with that of the deep trance subject; the ability of both to show great resistance to fatigue and to keep a limb in a given position for an extended period of time (catalepsy). Proceeding along the same path, they link the lack of contact with the external environment and the imperfect, blurred perceptions of the new-born baby with the same experiences reported by persons who succeed in reaching the level of the stuporous trance.

Following this we have a chapter on hypnotic phenomena in which many interesting ideas are advanced, but the conclusions drawn are, regrettably, not always supported by clear-cut experimental evidence or sufficient mustering of authority. Where authority is quoted and the literature well reviewed on a subject, the conclusion drawn is sometimes stronger than warranted. As an example, the emphatic statement that hypnotic sleep has "nothing to do with normal sleep" is very likely an expression of the general belief held by most serious workers in the field. Nevertheless, the evidence is still not so overwhelming as to justify this type of absolute assertion, and after the investigations of Koster, Darrow, and others, the conclusion would be better stated perhaps in the words of Pattie, "The preponderance of evidence is against the sleep theory of hypnosis."

On the score of post-hypnotic suggestions, the point is well made that the subject does not come out of the trance fully and immediately upon receiving the signal of the operator to awaken. The persistence of the trance state and its slow disappearance has been pointed out by many authorities, but its importance for an understanding of many of the features of hypnotic behavior merits continued underscoring. On the other hand, the flat statement that post-hypnotic suggestions will not be carried out after the subject has emerged from the hypnotic state unless they are reactivated by further contact with the hypnotist is not proved and runs counter to the reports of many distinguished workers. The reasons the authors give for this claim are logically worked out on the premise of their own theory, but in order to substantiate it they would have to destroy in a completely convincing manner the authenticity of cases related by a vast number of responsible and respectable writers on this subject. They would have to substitute, for the straw men they build up and then knock down, clear-cut refutations of such cases as those reported by Margaretta K. Bowers in *Introductory Lectures in Medical Hypnosis*. These cases are cited by Dr. Bowers to illustrate that it is possible to give post-hypnotic commands so that they last a lifetime.

The rest of this chapter is an interesting resumé of the various phenomena of hypnosis explained on the basis of their own theory, accompanied by a denial of the crucial role of suggestion. For them, suggestion has two distinct parts to play. First, in the clinical or experimental setting, it simply reveals the psychological state of the subject. Second, in what they term principal hypnotic relationships in daily life, as those between parents and children and teachers and pupils, suggestion plays an important part in education and re-education.

Their following chapter on the induction of the hypnotic state is a brief one in which little is given on actual induction technique. Some paragraphs are devoted to the exact words they use in their own induction procedure, which is in effect a repeated coaxing to relax and loosen up more and more, without suggestions of sleep or eye closure. For purposes of deepening, they alternate periods of talking with periods of silence, and the patient is instructed to practice at home so that he can improve his ability to reach deeper levels.

Although much has been written on the importance of eliciting hypnotic phenomena in order to convince the subject and thereby effect the deepening of the trance, they tend to discount this as well as other widely used trance-deepening procedures. According to their belief, the subject simply deepens himself as he learns to relax more and more. Having accomplished this, the hypnotic phenomena that are to be used therapeutically, such as anesthesia and control of hemorrhage, come into existence as natural concomitants of the state itself and of the patient's innate abilities,

with direct suggestion playing a very minor role and in most instances being superfluous.

Flowing logically from their theory is the division into direct or natural procedures and indirect ones. The direct type of procedure is one in which the operator intervenes in an active manner, searching out and stimulating the conditions that release the emotional hypnotic state in the subject. Although at first blush it may seem strange to hear the stage hypnotist described as completely passive, in contradistinction to the operator using the active approach of the direct method, a moment's reflection will reveal that this is thoroughly in keeping with the principles enunciated. The stage hypnotist is seen here as a simple catalyst, the subject developing the hypnotic state in himself and by himself. This point is clarified further in a sub-chapter concerning theatrical demonstrations of hypnosis in which the explanation is given that successful stage subjects are those who have already entered into a state of auto-hypnosis, perhaps before having arrived at the theater, without needing any active intervention on the part of the operator. What the operator achieves, therefore, is simply the transforming of this auto-hypnotic state into a hypnotic relationship with him.

In relation to hypnotizability, the point is made that every person has the capacity to enter the emotional hypnotic state with the help of an adequate stimulus. This does not mean, they hasten to add, that any operator is able to induce hypnosis in all of his subjects, but we are left with implication that all subjects, given the proper circumstances and an appropriate operator to work with, can accomplish trance entrance. This section too suffers in places from a certain lack of objectivity, in which substantiating evidence, apart from theoretical arguments, is ignored. For instance, the unqualified assertion that small children can only be carried into a hypnotic state by means of direct procedures perhaps reflects their own considerable clinical experience in a pediatric practice. On the other hand certain now famous examples of indirect inductions in children, notably those of Erickson, tend to refute this position.

A similar objection would have to be made in relation to their declaration concerning pre-suggestion as a factor in establishing a successful hypnotic interpersonal relationship. Here the pronouncement is made that it is evident that if the subject understands hypnosis according to contemporary concepts, the operator can utilize the hypnotic stare as much as he wants, make whatever number of passes and the like, without succeeding in inducing hypnosis. This would seem to be reasonable enough, yet can the point really be made with such 100% certainty?

The remaining two chapters of this work deal with hypnosis and psychotherapy. A brief resumé is given of the points of view and basic philosophical approaches of such schools as the Freudian, Adlerian, and Jungian, the differences being given in brief and simplified form. The purpose here is to show in a few words the considerable disparity in approach and to indicate that despite this disparity patients are helped and that there is little variation in the percentages of success achieved by the various schools.

From this fact they conclude that the curative factor in the different psychotherapeutic approaches must come from something they all have in common. This common element, they propose, is the interpersonal relationship between the therapist and the patient. Going a step further, they state that hypnotic emotional relationships constitute the curative principle in all of the forms of psychotherapy, the hypnosis giving rise to an emotional stabilization which allows the individual to mobilize his own inner resources and thereby make a better adaptation to his environment. What differentiates hypnotherapy per se from other orientations is simply the fact that here the hypnotic state is deliberately induced; and what gives it its most important advantage is the rapidity of the course of treatment.

In the exposition of this view we have the most fascinating part of the book and something we would like to see elaborated further in future writings. The decisive role of the interpersonal relationship in psychotherapy is not a new or startling concept today. What is new, however, and what constitutes the challenge of this work is the equating of this interpersonal relationship with an emotional hypnotic state, in so doing giving a possible basis for understanding what it is that makes the interpersonal relationship effective in this sense. Here a path is pointed out that the investigator and explorer might do very well to follow.

Working directly to establish a hypnotic relationship, according to the authors, results in a considerable shortening of the time required for the cure of the patient, so that treatment is approximately ten times as fast. The presentation of this ratio

in the form stated raises other questions. How is this ratio arrived at? In what types of condition does the proportion hold true? What constitutes "cure?" The authors maintain in this section of their work that any attempt to classify emotional disorders is completely artificial and unnecessary; that the symptoms or syndromes that the patient presents are no more than an external expression of a disturbance of the personality; that this disturbance may express itself in many different ways, and that there is not to date a satisfactory explanation for the selection, by some patients, of stuttering, while others display digestive upsets, skin conditions, fears, etc.

From these premises it is understandable that therapeutic goals and treatment procedures would be presented in the same undifferentiated way. Whereas in the monumental work of Wolberg (*Medical Hypnosis*, 2 vol., Grune and Stratton, 1948) the application of hypnosis is related specifically to a wide variety of well-classified conditions and treatment approaches, in each one of which the potential efficacy of hypnosis as an aid is carefully evaluated, here no such attempt is made. Based on the assumptions explained above, it is not felt necessary to present much descriptive material on the various disturbances listed nor to touch upon the mechanisms underlying them. The therapeutic goal is almost in all cases the same, the restabilizing of emotions through hypnosis. The generally accepted axiom that hypnosis is just another tool we work with undergoes a qualitative change here.

Hypnosis becomes *the* tool, the means and the end. As such we see it in the final paragraph of their book, where Drs. Solovey and Milechnin sum up in the following words:

"In order to achieve a cure so understood, the psychotherapist combines three simultaneous lines of action as best becomes the case: the establishing of a constructive hypnotic interpersonal relationship with the patient; the attempt to enlist the help of the patient's hypnotic interpersonal relationships in his daily life in favor of the psychotherapeutic process (neutralizing some relationships and stimulating others during the period of treatment); and the development of the associations of the patient to the entrance into an autohypnotic state for the stabilization of his emotional state."

There is undoubtedly much to be learned from this approach, which emphasizes the patient's own role in achieving a hypnotic state and using it for his own therapeutic purposes, in which by the simple fact of giving him the opportunity to reorganize actively his own psychological powers he is enabled to surmount his difficulties. There is undoubtedly much to be learned also from the minimizing of the role of suggestion in their method of work, and more critical thinking could be directed along the lines of their well buttressed argument that too many of the suggestions given are either superfluous or can act contrary to the sense intended. The successes that the authors have been reporting in a varied number of conditions, in which symptoms disappeared and the patients were able to function normally in their daily relationships, merit our attention. It is true that there are many negative aspects to this work. The authors do not always manifest a balanced and objective approach to the subject. And they would do well to discard their habit of proving points by quoting themselves, citing their own previously published papers. Nevertheless, this is a valuable contribution to the literature on hypnosis, and it is to be hoped that an alert publisher will realize the value of this work and translate it into English. (The point could be made too, bearing in mind the extensive bibliography in English, that the time is ripe for an alert publisher to begin translating some of the basic texts into Spanish.) In the meantime, this work should be on the shelves of every Spanish-speaking professional interested in hypnosis.

Jacob Stolzenberg. *Psychosomatics and Suggestion Therapy in Dentistry.* New York: Philosophical Library, 1950. xii + 152 pp.

By Irving I. Secter, D.D.S.

At the time this book was written, the concept of psychosomatics in dentistry was probably unfamiliar to many dentists. A psychological orientation for the dentist and the use of hypnotic techniques as part of the dentist's therapeutic armamentarium were ideas to which very few, as yet subscribed. To Dr. Stolzenberg must go the credit for pioneering efforts in calling the dentist's attention to the need for becoming acquainted with the psychodynamics of interpersonal relationships and the role of motivation in behavior. That the author was more successful in this regard than in the creation of a comprehensive textbook in these areas is not to his discredit.

The subject matter of the book is stated in the Preface as follows:

"The author deals with the dynamics of psychosomatics in the dentist as well as the

patient. He also discusses the management of therapy and suggestion and the use of hypnosis in dental practice."

"The text deals with the management of patients who are in emotional conflict and have phobias regarding dental procedures. It also discusses the problems and management of oral symptoms induced by emotional disturbances."

In introducing "psychosomatics," the author declares that "mind and body have been separated too long." At the same time he perpetuates the separation with the following definitions:

"In effect, what psychosomatic medicine aims to achieve is to bring . . . . a realization of the effects of emotional states on bodily health and function."

"Psychosomatics—that is to say: the action of mind (psyche) on body (soma)."

Psychosomatic therapy is equated with suggestive therapy. In referring to ailments, "psychoneurotic" is used synonymously with "psychosomatic."

The author states:

"The mechanisms of psychosomatic ill health and psychosomatic therapy are, in fact, identical. In one case the mechanism is being brought into operation unconsciously by the patient, to his own detriment, while in the case of therapy, the mechanism is being excited and operated in a controlled way by the practitioner to reverse the harm that the patient is doing himself."

Thus, the author's concept of psychosomatics seems to involve the somatic effects of emotion and the reversal of this process by suggestive therapy.

The author offers as the basis of psychosomatic ailments the concept that a neurosis is a defense against harmful or unwelcome reality. He describes the defense mechanisms of repression, displacement of aggression, and reaction formation. Without adding anything new and without considering other motivational theories of behavior, psychoanalytic formulations of Freudian origin are glibly and naively rehashed. The following are examples:

"The well known penchant of children and women for candy, bonbons, and so on, with resultant dental problems, is doubtless a displacement of sexual frustrations to the oral sphere."

"The melancholy truth is that the public is afraid of dentists because dentists inflict pain . . . . "

" . . . . suspicion attaches to every dentist . . . . that he *likes* his work."

" . . . . every practitioner . . . . must search deeply into his character to discover whether or not the cruel, brutal, and sadistic possibilities of the work are not what attracted him to it in the first place."

" . . . sadism stems from repressed sexuality."

Recognition is made of emotional causation for periodontal disease, bruxism, and gingivitis in some cases. While offering a commonsense approach to the management of these conditions, the author concludes,

"The patient who cannot be satisfactorily managed and satisfied by normal dental treatment, and who shows evidence of emotional conflict should be referred to a psychiatrist for further investigation."

The chapter entitled, "Philosopher's Stone of Successful Dental Practice" is very useful. It touches on the questions of emotional maturity, sound practice administration, proficient dental background, operative acuity, and professional meticulousness and exactness.

A very small section (20 pages, exclusive of case reports) is devoted to hypnodontics. In this section an attempt is made to cover the background of hypnosis, dynamics of hypnosis, qualifications for an operator, stages of hypnosis, techniques of hypnosis, and indications for hypnosis in dental practice.

The following statement is found on page 28: "It is clear that hypnosis is the uttermost possible form of controlling another human being." On page 29, the author states "that power like this is easy to misuse." The above statements may inadvertently contribute to a hypnotist-centered psychology in the beginning student who may try to use this book as a basic text for hypnodontics. This constitutes a weakness which this book shares with many otherwise excellent volumes relating to therapeutic applications of hypnosis. This weakness may be offset by the author's wise advice that hypnosis be used only as an adjunct to, and not as a substitute for, other approved techniques in dentistry.

It is this reviewer's opinion that the book could easily become a useful text in the areas of psychosomatics in dentistry and in hypnodontics. This may be accomplished by broadening the theoretical approach to motivation, by treating the section on hypnosis more comprehensively, and by including some of the ideas expressed in the author's later writings.

Ainslie Meares. *Hypnography: a Study in the Therapeutic Use of Symbolic Painting.* Springfield, Ill.: Charles C Thomas, 1957. 271 pp., 385 ill. $7.75.

By Bernard E. Gorton, M.D.

This book by an Australian psychiatrist deals with the therapeutic use of paintings produced by patients under hypnosis. It is one of the few volumes that deal exclusively with a single hypnotherapeutic technique. The author, who has a number of publications on hypnosis in psychiatry to his credit, does not claim originality for the method. Hypnography was evolved when it was found that hypnotized patients could express themselves well graphically when unable to verbalize certain material.

The book contains sections devoted to methods of hypnotic induction, the selection of patients for treatment under hypnosis, the dynamics of the hypnotherapeutic situation, a description of the method of hypnography, and a collection of reproductions of paintings by patients together with brief case histories.

It is acknowledged that hypnography is only a single technique of hypnotic psychotherapy, which itself is but one method of general psychotherapy. The author prefers a technique of "passive induction of hypnosis," which he contrasts with the older authoritarian methods. He points out that the earlier medical hypnotists relied chiefly on authority and prestige and that their patients were usually uneducated folk who were the therapist's social inferiors. Nowadays patients are often well informed, do not tend in the same way to regard the therapist as their superior, and respond better to permissive induction approaches of an indirect nature. "The aim is for the hypnotic suggestions to follow imperceptibly from casual conversation with the patient . . . in the conversation and in the initial verbal suggestions conventional syntax is used . . . as the suggestions proceed the spoken sentences become simpler and simpler so that finally the suggestions are conveyed as single words with no syntax at all . . . the voice loses its normal inflection and becomes more and more monotonous."

In Dr. Meares' "dynamic method" for the induction of hypnosis one observes closely the "defenses" of the patient tending to counteract the development of a trance state. Suggestions are then altered so as to circumvent the patient's resistant behavior, or the "defenses" themselves are incorporated into the hypnotic suggestions. "The object is to keep the procedure fluctuant and dynamic. There is no monotonous repetition of the same suggestion . . . the suggestions are graded as to ease of acceptance, but in the dynamic method this is less important and to some extent is replaced by continually changing the nature of the suggestion from one subject to another. The suggestions follow no fixed pattern but are given according to the moment to moment situation . . . It is essentially a technique of change . . . the exact field in which the initial suggestions are made is unimportant as in a few moments the suggestions will be switched to another area."

In discussing the problem of estimating the patient's suggestibility, the author points out that such "suggestibility tests" as the hand-clasping and swaying tests are unsuited to the clinical situation. "There is a traumatic or bizarre quality about them which rather savors of the variety stage . . . the introduction of the necessarily authoritative attitude at the very beginning of treatment is technically bad." He details methods for estimating suggestibility unbeknown to the patient in the course of a routine physical or neurological examination. During the elicitation of the tendon reflexes the patient is told to relax his whole body, to let all his muscles loose, so that the reflexes can be tested. Some patients give a positive response, they relax more or less completely; this indicates that they are suggestible and easily hypnotizable by suggestions of relaxation. Those who make little or no response require longer to be hypnotized to a depth sufficient for hypnoanalysis. Those patients who become more tense instead of relaxing are negatively suggestible, and may be induced by a technique designed to take advantage of their resistant behavior, such as the suggestion of repetitive alternating motions, or a hand levitation technique. In these procedures the patient is unaware he is being tested for hypnosis. If he proves unsuitable the subject of hypnosis need not be discussed, there is no disappointment of the patient, no loss of face by the therapist, and nothing to endanger rapport.

In taking up the question of the selection of patients for therapy under hypnosis, Dr. Meares observes that "For any form of psychiatric therapy the patient's motivation for treatment must be assessed; this is particularly important when hypnotherapy is contemplated. . . . When a patient presents himself specifically for treatment under hypnosis, it is wise to examine his reasons for selecting hypnosis in preference to other forms of treatment. A clear assess-

ment of the patient's motivation for hypnotherapy is very necessary." He notes that patients who abreact during history taking are usually more easily hypnotized, and that the affective relationship between patient and physician *en rapport* during the interview situation merges into a similar relationship between the hypnoanalyst and the patient entering the trance state. A full psychiatric examination of the patient prior to hypnosis should exclude practically the danger of precipitating a frank psychosis in an ambulatory psychotic case and may otherwise yield valuable clues concerning the patient's psychodynamics. "The guilty and depressed patient expects little and is not disapointed . . . the chronic hysteric expects the knight in shining armor and is immediately disillusioned."

In the technique of hypnotic painting itself, it is necessary that the patient attain a certain depth of hypnosis before hypnography can be commenced. The matter of painting is not discussed with the patient before trance induction, to prevent conscious elaboration of ideas that may interfere with the spontaneous production of material in the painting. The painting is started by suggesting automatic hand movements: "Your hand will paint it, your hand will paint something, it paints what is in your mind, it paints no matter what it is, it paints the thing in your mind." The chief value of hypnography lies in the patient's associations to the paintings, and their utilization in therapy; these associations are usually blunt, realistic, and to the point and differ markedly from the usual associations of waking psychotherapy.

The paintings produced with this technique superficially resemble the paintings of children. They often consist merely of the outline of an object, are poor representations of the object they aim to depict, and are flat without any perspective. Sexual conflicts may be expressed with the uninhibited realism of childhood. The resemblances to children's paintings suggest that frequently there occurs spontaneous age regression during hypnography. Defense mechanisms may come into play, distorting the latent content of the picture in a manner analogous to the well-known mechanism of symbolic distortion in dreams. It is found that the object painted is in some way connected with an event that is psychically significant to the patient; the event may have taken place at any time from infancy to the present day. It often seems that material of this nature has been suppressed rather than repressed. When social, occupational, or financial subjects occur they usually have a deeper significance as symbols of self-realization. The subject matter is frequently far removed from the topics discussed in waking psychotherapy just prior to the induction of hypnosis. When the patients relate their present-day conflicts, it is often found that their attitude to the problem, as shown by the painting or by associations to the painting, is at marked variance to their attitude as disclosed by waking psychotherapy.

Some of the paintings are symbolic in the Freudian or Jungian sense. Usually an understanding of the subject matter of the painting only comes from the patient's verbal associations. Most commonly it is the primitive human emotions which are expressed, stark love and hate unadorned and undisguised. An unstructured matrix of tentative marks may become the screen onto which ideas are projected, much as in the ink blots of the Rorschach test. There may be representational and conventional symbols which express an idea by means of some conventional sign, or there may be individual symbols peculiar to a particular patient. A feature of the individual symbol is its tendency to be used repeatedly in different paintings and in different sessions. Universal symbols are mostly the familiar phallic and female symbols. The hypnotized patient does not have the same needs as the waking patient to defend himself from awareness of his sexual drives, and unconscious conflicts spontaneously seek ventilation. Provided adequate depth of hypnosis is maintained, the traumatic nature of the ideas expressed does not unduly disturb the patient.

If a patient is allowed to ventilate traumatic material in several sessions of hypnography, it seems that he may gradually achieve some degree of insight without any waking psychotherapy at all. The process may be slow, it may be incomplete, but nevertheless it is very real. It is often coincident with symptomatic improvement. It may be reflected in the character of the paintings in that portrayal of basic conflicts may give way to more superficial conflicts or reality problems. Dr. Meares aptly comments, "All of us who practice psychiatry know of patients who have made apparently complete and lasting symptomatic recovery, and who certainly did not achieve full insight. We all know of others who remain plagued with nervous symptoms and who at the same time would appear to have very full insight."

The author does not give suggestions of amnesia for a hypnography session, no

matter how disturbing it may have been, but prefers to allow the patient's natural defenses to come into play and determine how much is remembered afterwards at the waking level.

Hypnography is particularly helpful with patients who do not readily talk while under hypnosis. Some patients have ventilated significant material in hypnography which was not expressed during waking psychotherapy, narcoanalysis or verbal hypnoanalysis. This may be owing to the fact that the common defenses against verbal expression are often not applicable to graphic expression.

The many illustrations in the book excellently portray the type of material with its accompanying associations that is obtained through hypnography. Particularly interesting are the examples of "screen-paintings" which are found to hide more traumatic material in a manner exactly similar to the well-known "dream-screen." It is unfortunate that only very sketchy and fragmentary case history material is supplied, so that the reader does not gain a complete understanding of how the author fits hypnography into the overall psychotherapeutic procedure.

This otherwise valuable work contains a number of surprisingly controversial statements that are open to question, and with which this reviewer finds himself in disagreement. Thus the author believes it to be "dishonest" to hypnotize a patient without his knowledge and prior consent: "The patient must be told about hypnosis and his consent obtained prior to starting treatment . . . one should never proceed to treatment on the same day . . . Before treatment is started the patient must be given some sort of estimate of the number of sessions that might be required and an estimate of the cost. It would be clearly wrong to expect the patient's consent to hypnosis without first discussing these matters." Dr. Meares does not say how he determines the number of hypnotherapy sessions necessary when he has not as yet attempted the first formal hypnotic induction of the patient.

In discussing what he calls "the evergreen problem of the male therapist hypnotizing the female patient" the author concludes that it is desirable to have a witness, namely the office nurse, present during the session.

One also finds the statement: "A practical danger is that the patient may become drowsy on the way home from treatment . . . it is the practice to insist that the patient be accompanied home by a relative or friend."

The explanation for these bizarre strictures may lie in the author's remark that "The idea of hypnosis is still vaguely associated with witchcraft and submission to another's will" in the popular mind. It is ironic that Dr. Meares himself at times acts in accordance with obsolete notions concerning the supposed dangers of hypnotic procedure, as reflected by the proscriptions just cited.

The chief criticism that can be made of this book is that Dr. Meares has not taken the time or trouble to integrate his work with the existing literature in the field of hypnotherapy and general hypnotic technique. It may be that this lack of sophistication is the result of his geographically isolated location, but this does not explain why in a work of this type the only bibliographic references should be to Dr. Meares' own papers. One would never suspect from reading this book that there exists a wealth of literature in which experienced workers such as Erickson, Wolberg, Rosen, Schneck and others have reported a tremendous variety of techniques of hypnotic induction and therapy that go far beyond what is presented in *Hypnography*.

The author has succeeded in illustrating a particular technique with extensive, although brief, case material, and this should prove of interest to anyone seriously interested in hypnotic psychotherapy. His more general discussion frequently has merit, yet reflects a rather limited technical repertoire. There are surely very few experienced clinicians today who do not recognize the limitations of the "authoritative" induction methods. The so-called "passive method" is a variant of the sensorimotor techniques long ago described by Erickson and others. The "dynamic" method of induction is essentially a variant of Erickson's confusion technique and the principles set forth in his "Deep Hypnosis and its Induction." It is always valuable to have different workers discover similar methods independently, but sound scholarship demands that proper credit be given where credit is due.

Even though one may not agree with the author of *Hypnography* at all times, and this reviewer certainly does not agree with some of his methodologic rigidities, there is much that is good to be found in the pages of this work. It forms a worthwhile supplement to existing books on the subject and properly belongs in the library of any serious student of hypnotherapy.

ABSTRACTS OF CURRENT LITERATURE

Edited by Bernard E. Gorton, M.D.

The abstracts below which are followed by the letters P.A. are reprinted from Psychological Abstracts through the courtesy of the American Psychological Association.

15. Rudolph. Zur Hypnosetechnik. (Concerning hypnotherapy.) *Dtsch. Gesundh-Wes.*, 1958, **13**, 1347.

Hypnosis increasingly finds a place in psychotherapy when it is desired to modify the psychophysiologic behavior of the patient directly. Modern hypnotherapy does not involve the mystification or subjugation of the patient, but requires that the physician orient himself toward the patient's personality needs. Hypnotherapeutic work should be adapted to the capacities of the patient and should strive for whatever he can accomplish at a given time. Suggestions should not be in the form of commands but aimed at the presentation of ideas. Hypnotherapeutic intervention is possible wherever disturbed bodily functioning exists, and particularly in the correction of neurotic functional disturbances. (B.E.G.)

16. Cooper, L. K., and Finney, F. A. A report on hypnodontia in Alabama. *J. Ala. dent. Ass.*, 1959, **43**, 12-15.

The authors review the history and present status of hypnodontics and summarize their experiences with 150 patients in dental practice. The need for the dentist to remain within the confines of his field in using hypnosis is stressed. Two case histories illustrating the application of hypnodontics are presented. (B.E.G.)

17. Schultz, J. H. Aktuelles zum autogenen Training. (A recent news item concerning autogenic training.) *Psychotherapie*, 1957, **2**, 85-86.

A German newspaper reported on 14 April 1957 that Dr. Hannes Lindemann, who crossed the Atlantic alone in a small collapsible boat, did so with the help of autogenic training. During his first attempt to cross the Atlantic alone Dr. Lindemann experienced a hallucinatory dissociative episode, owing to lack of sleep over a prolonged period, in which he threw his food, drink, and other supplies overboard. In his second successful attempt he used autogenically induced periods of ten-minute sleep several times daily. This "super-human" feat demonstrates what can be accomplished in maximizing performance through autogenic concentrative training methods. (B.E.G.)

18. Rosen, H. Hypnosis and self-hypnosis in medical practice. *Md. St. med. J.*, 1957, **6**, 297-299.

The use of hypnosis for sedation, analgesia, or anesthesia in medical practice can safely be practiced by any physician. If more than this is to be attempted training in the motivational bases (psychodynamics) of human behavior is needed. Such instruction should preferably be under the aegis of medical schools and medical societies. The physician wishing to do psychotherapy on hypnotic or non-hypnotic levels needs training in psychotherapy, for which the mere ability to hypnotize is not a substitute. The indiscriminate training of patients in self-hypnosis without continuing medical supervision is to be condemned. Because one out of 20 of the general population has been, is, or will be so seriously ill at some stage or other of his life as to require psychiatric hospitalization, the physician using hypnosis needs to be circumspect and aware of the potential dangers involved when symptomatic hypnotherapy is attempted. (B.E.G.)

19. Rosen, H. Psychosomatic aspects of orthopedics—psychiatric discussion. In *Psychosomatic aspects of surgery.* New York, Grune & Stratton, 1956.

The author illustrates psychosomatic interrelationships by discussing the hypnotherapeutic management of severe and incapacitating low back pain, phantom limb,

causalgia, and torticollis. The diagnosis of a psychogenic basis for orthopedic complaints should be made positively and not merely by exclusion. Emotionally ill patients frequently utilize organic pathology as a focus for psychogenic symptomatology. When there is serious underlying psychopathology, symptom removal may at times be contra-indicated and dangerous unless the underlying psychiatric disorder can be adequately treated. (B.E.G.)

20. Mershimer, J. D. How hypnosis can help you in dentistry. *Oral Hyg.*, June 1958, 4 pp.

A full day workshop given by the Chicago Academy of Dental Psychosomatics is outlined, and the different contributions by participants in the program are briefly mentioned. The advantages and disadvantages of hypnoanesthesia as related to chemical anesthesia are listed, and two techniques are given, one for gaining confidence with children and the other for overcoming the gag reflex in denture patients. The article concludes with excerpts from a paper on the control of fear and anxiety. (S. Irwin Shaw.)

21. Kuhner, A. Evaluation of hypnosis in dental therapeutics from the dentist's viewpoint. *J. Amer. Soc. psychosom. Dent. Med.*, 1959, **6**, 9-19. (Reprinted from *J. Amer. dent. Ass.*, 1957, **54**.)

Part of a symposium on "Evaluation of hypnosis in dental practice" at the annual session of the American Dental Association in 1956. The author reviews the early development and progress in training dentists in the clinical use of hypnosis, and he covers some of the standards and principles of conduct related to such training in the past and present. The uses and indications for hypnosis in dental practice are outlined, and the author offers three main categories to cover all usage of hypnosis as applied to dentistry. These are: hypnosis for relaxation, for analgesia, and for building self-confidence in the patient. In this last category the dentist is warned against overstepping the bounds of dental practice. Four case histories are presented to illustrate the various phases of hypnosis in dentistry with particular emphasis on these main categories. (S. Irwin Shaw.)

22. Berger, A. S., and Simel, P. J. Effect of hypnosis on intraocular pressure in normal and glaucomatous subjects. *Psychosom. Med.*, 1958, **20**, 321-327.

Eleven patients suffering from glaucoma and four normal subjects were studied to determine (1) whether hypnosis itself would affect intraocular pressure, (2) whether waking or hypnotic suggestion could alter intraocular tension, and (3) if it were possible to affect intraocular pressure by hypnotically induced strong emotions. The most impressive single finding was that on direct waking suggestion of symptom relief, all glaucomatous patients showed a drop in the pressure of one or both eyes to a level as low or lower than the lowest recorded tension during the preceding 12 months they had been followed in the eye clinic. From an experimental procedure comprised of a total of three group hypnotic sessions, the authors conclude that: hypnosis per se caused no significant alteration in intraocular tension, posthypnotic suggestion of symptom relief produced no significant drop in pressure, and a hypnotically induced anxiety situation (during group hypnosis) produced no significant effects on intraocular tension in normals or patients. (B.E.G.)

23. Conn, J. H. Therapeutic suggestion and hypnosis. *Curr. med. Dig.*, Jan. 1959, 65-69. (Reprinted from *Md. St. med. J.*, Oct. 1958.)

After discussing briefly some recent studies of the effectiveness of placebo therapy, the author states, "There is absolutely no difference in kind between hypnotic suggestion and the waking suggestions . . . described . . . . Hypnosis is nothing more than suggestive, placebo effect presented in a specific interpersonal setting." Some recent clinical applications of hypnosis are listed and a bibliography appended. (B.E.G.)

24. Schneck, J. M. Relationships between hypnotist-audience and hypnotist-subject interaction. *J. clin. exp. Hypnosis*, 1958, **6**, 171-181.

A frequent minor or major complication in hypnotherapy is the previous experience of the patient with popular exhibitions of hypnosis. Previous work by Van Pelt and Wells on stage hypnosis is cited. A popular exhibition by a well known stage hypnotist is described and analyzed in detail and shown to be a mixture of entertainment method and poorly managed hypnotic technique. The audience is impressed by implication rather than by elicitation of phenomena or clarification of claims with demonstration by challenge. Reliance is placed on the suggestibility and gullibility of the audience. There is fostering of audience-subject identification and subject-hypnotist identification via co-entertainer status. Errors in technique occurred to a surprising degree, in view of the stage hypnotist's extensive experience. (B.E.G.)

25. Weitzenhoffer, A. M. A note concerning hypnotic susceptibility and maladjustment. *J. clin. exp. Hypnosis*, 1958, **6**, 182-184.

On the basis of more recent data reported by others the author revises some earlier conclusions regarding the relationship of neuroticism and suggestibility. He proposes that the evidence now suggests the existence of at least two clusters. Within the group of mentally ill individuals, the overly psychoneurotic remain more suggestible than "normal" persons. Among "normals" suggestibility appears to be positively correlated with well-adjustment. (A.M.W.)

26. Pfersick, C. D. Relaxing and hypnotic techniques in dentistry. *J. amer. Soc. psychosom. Dent.*, 1954, **1**, 13 ff.

A very brief recounting of a hypnotic induction technique. (P.A.)

27. Ament, P. Stress removal in dental practice with hypnodontics. *J. amer. Soc. psychosom. Dent.*, 1954, **1**, 3-6.

Brief discussion advocating use of hypnosis as an adjunct in dental procedures. (P.A.)

28. Hart, H. Measuring some results of autohypnosis. *J. clin. exp. Hypnosis*, 1955, **3**, 229-242.

Some preliminary results are presented which were obtained by use of two newly developed self-rating devices used to ascertain some results of auto-post-hypnotic suggestion. Six hypotheses are formulated and confirmed. A good deal of detail on the rating devices is presented. (P.A.)

29. Solovey de Milechnin, G. Concerning the concept of hypnotic depth. *J. clin. exp. Hypnosis*, 1955, **3**, 243-252.

Existing conceptions of hypnotic depth are discussed critically. It is concluded that the hypnotic state is a special emotional condition, the intensity of which varies similarly to that of other emotional states. Hypnotic depth can best be described as retrogression to a more primitive psychological mechanism. 39 references. (P.A.)

THE CONTROL OF FEAR WITH HYPNOSIS

by Jay Haley, M.A.[1]

If a person is afraid when others are not and say he should not be, he is said to be suffering from irrational fear. It is not always easy to distinguish between a realistic fear and an irrational fear, because one person may see a situation as realistically dangerous and another may not. Yet in most cases the distinction can be made. If a person is afraid to ride an elevator, or afraid to leave the house, or manifests other phobic and anxiety reactions he is generally considered unreasonably afraid. Often this kind of fear seems unreasonable to the person suffering from it, and he may get angry at himself and be unable to understand why he responds in a fearful way to certain situations.

Some years ago I observed a traumatic incident which illustrates how children learn what to fear. While visiting the zoo in New York City I observed a little girl walking along holding her father's hand. She saw a lion in his cage and ran happily toward it, tugging her father after her. As they reached the cage, her father turned his head to see where he was being dragged and found himself facing this lion. He stiffened abruptly, and the little girl stopped and looked up at him. Then she backed away from the lion's cage, pulling her father after her. Her whole demeanor changed from delight at that creature behind the bars to apprehensiveness. This would seem to have been the birth of an unreasonable fear. After all, the lion was securely behind bars, and for the little girl to fear him was particularly unreasonable, since she presumably had no prior knowledge that a lion is a dangerous predator. Her father had told her to be afraid in that situation, but he told her in such a way that it is doubtful if she could articulate the origin of her fear later in life.

If today the young lady is still afraid to stand in front of a lion's cage, presumably her fear has been reinforced over the years. From the point of view offered here, it takes two people to create an irrational fear, and the fearful person must have that fear reinforced if it persists. A fearful person may have his fear reinforced by someone else, or he may reinforce it himself by his own behavior. This young lady might, for example, carefully avoid going in front of a lion's cage again and so with each avoidance reinforce her fear of the situation. Similarly, she might regularly try to go in front of the cage and abandon the attempt each time she found herself behaving in a tense and agitated manner and so reinforce her fear. Although ordinarily it is said that a person feels afraid and therefore manifests fearful behavior, the opposite is also true—his fearful behavior causes feelings of fear. If this were not so, it is doubtful if we could relieve fear with hypnosis.[2]

[1] Stanford University and Veterans Administration Hospital, Palo Alto, California. Research Associate, Project for the Study of Schizophrenic Communication, directed by Gregory Bateson. The project is financed by the Macy Foundation, administered by the Department of Anthropology at Stanford University, and functions at the Veterans Administration Hospital, Palo Alto, California.

[2] The function of fearful behavior, or why one would reinforce his fears, is not the main emphasis here. Being fearful may serve many functions and these have been discussed by both psychoanalytic and interpersonal theoreticians. Although it does not seem always necessary to remove the function of a fear to remove the fear, it does seem necessary to terminate the process of reinforcing fear, and this is the subject of discussion here.

If this young lady, now fifteen years older, is still afraid to stand in front of a lion's cage and admire the beast, how could one help her resolve this fear? One might try the layman's approach to phobias and attempt to argue her out of it. By calculating the strength of the steel bars on the cage and the muscle power of the lion, one could prove conclusively that he could not burst through those bars. Yet it is doubtful that such an argument would persuade the young lady to stroll at ease in front of the cage. The thing about unreasonable fear is that it is unreasonable. The victim of such a fear is usually quite aware that he is not being logical, and so discussions of the absurdity of the fear serve no useful purpose.

Another method one might try would be to force the girl to go in front of the cage and discover that the situation was safe. However, if the young lady were dragged screaming in front of the cage, it is not likely that she would find it easier the next time to go there by herself. Similarly, if she should bravely drag herself in front of the cage while behaving in a tense, frightened manner, as if ready to flee at any moment, she would probably not find it easier the next time.

Yet another method would be to give the victim "insight" into the fear. The young lady might enter psychoanalysis and perhaps recall on the couch that she was first afraid while standing in front of the cage with her father. She could then produce hidden fantasies about the lion and her father. Yet even with this self-knowledge she might find herself tensing up and become unable to stand in front of the cage. "Insight" alone does not necessarily relieve fear; if it did, one could gain self-knowledge and relieve fears by reading books on phobias. Should the young lady overcome her fear after achieving "insight" in analysis, we could never determine whether it was the self-knowledge she had gained or the fact that she was proving something, or disproving it, to her analyst. Self-knowledge gained in a therapeutic relationship is always complicated by the fact that the patient is involved intensely with a therapist, and this involvement is what is under discussion here.

One thing is certain: no matter what form of therapy the young lady receives, we will know that she has overcome her fear of the lion's cage only if she goes in front of the cage behaving in a calm manner. Yet the question I wish to raise here is whether the calm behavior in front of the lion's cage is a manifestation of cure or an essential aspect of the process of cure.

If we simplify our therapeutic goal in relieving fear, we can hypothesize that the goal is (a) to induce the victim to go through the fearful situation while (b) behaving differently than he has in that situation in the past. To achieve such a goal, the therapist must gain control of the victim's behavior in that fearful situation. Certainly if the fearful person sets the terms for what he does in that situation, he will behave in a fearful way. Yet how can one so establish a relationship that he sets the terms for another person's behavior and that person does not?

It is no simple task to gain control of a person's behavior, especially a fearful person who behaves "involuntarily" in an agitated manner. One can persuade someone to do what one asks, but to induce him to do it without attempting to control the situation is another matter. Usually when we try to get someone to do as we direct he either refuses or complies but indicates, "Well, all right, I'll let you tell me what to do if it makes you happy." In neither case do we have control of his behavior. To control how a person behaves we must (a)

persuade the person to do what we say and (b) at the same time indicate that he is not attempting to control our behavior or keep control of his own.

If we lay out the problem in stages, we can say that the first step in gaining control of someone's behavior is to persuade him to agree to do what you ask. The next step is to ask him to do something he can easily do. At this point he is behaving as you direct, but he is not necessarily acknowledging that he is not controlling his own behavior. The next step is to persuade him to do just that: he must be directed to behave without attempting to control his own behavior or yours. That is, we must persuade him to behave in an "involuntary" way. These steps are the stages in the induction of hypnotic trance.

Typically a hypnotist prefers a subject who is willing to do what he asks. Then he asks the subject to do something he can easily do. He may ask him to look at a point, or concentrate on his hand, or make himself comfortable in a chair. When the subject has voluntarily done what he asks, the hypnotist then asks the subject to behave in an "involuntary" way. For example, he suggests that the person's eyelids will close because he will be unable to keep them open.

Hypnosis might be defined as the art of getting someone to do what you tell him while indicating that *he* isn't doing it. In the standard hand levitation induction, the hypnotist tells the subject to put his hand on his knee and not move it. Then the hypnotist says, "Your hand is going to feel lighter and begin to lift up. Lifting, lifting . . . " If we look at what is happening, the hypnotist is telling the subject not to move his hand and then telling him to move it. The subject cannot please the hypnotist by doing either, he must do both. He must lift the hand, and he must indicate *he* isn't lifting it if he is to satisfy both requests.

When a hypnotist asks someone to lift a hand and not lift it, he may get any one of four responses: (a) the subject may suggest that they drop the whole matter and end the hypnotic session, (b) the subject may not move his hand at all, (c) the subject may move his hand in a "voluntary" way and the hypnotist will correct him by saying, "I don't want *you* to lift it," and ask him to try again, (d) the subject may move the hand and indicate that *he* isn't moving it—it's just happening. This last response is called evidence of hypnotic trance.

Various explanations are offered for the behavior of a subject in trance. It is said that he doesn't really lift his hand, his unconscious does, or autonomic processes have taken over, and so on. However, if we describe *what* is happening rather than *why* it is happening, the subject is lifting a hand on request but indicating that *he* isn't lifting it. He may indicate that the hand movement is involuntary by the way he moves his hand, by his expression, by a verbal comment, and so on. Yet when he is behaving like a trance subject he is conceding that *he* is not controlling his behavior. (See (1) for a fuller discussion of hypnosis from this point of view.)

It was pointed out earlier that you must gain control of a person's behavior to relieve his fear, and further that such control is gained only if you (a) persuade the patient to do what you ask and (b) indicate that he is not controlling what he does. It would seem to follow that hypnosis is an ideal way to resolve fear, since gaining control in this way is the central process of hypnosis. Furthermore, the fearful person is indicating that his behavior is "involuntary" when he trembles and becomes agitated. He is indicating he is not controlling his behavior. The hypnotist requests similar behavior from him when he asks him to behave in a certain way and

indicates he is not controlling his behavior.

By asking the subject to do something and not to do it, one puts the subject in a position where it is difficult for him to refuse and resist the hypnotist. Whether he does it or not, he is complying with the hypnotist's directions. He might leave the field and walk away, but if he continues he is likely to find himself following directions whether he likes it or not.

Of course some hypnotic subjects are resistant, and all subjects resist the maneuvers of the hypnotist to some degree. Hypnotic technique has been designed to handle such resistance. For example, if the subject does not move his hand at all during a hand levitation induction, thereby indicating that he is controlling his own behavior, the hypnotist will compliment him on the stillness of his hand and suggest it can become so immobile he will be unable to move it if he tries. If the subject then holds his hand still, he is conceding that he is following the hypnotist's direction.

If the process of resistance to hypnosis is examined, it is clearly an attempt by the subject to control his own behavior or that of the hypnotist. When the subject makes such an attempt, the usual procedure of the hypnotist is to "accept" it. If the subject is asked to develop a lightness of the hand and he reports a heaviness instead, he is not told to stop that sort of thing. This response would be simple to resist and the subject could provoke the hypnotist whenever he chose. Typically the hypnotist compliments the subject on being able to change the feeling of his hand, and he instructs him to make the hand feel even heavier. By accepting and encouraging the resistant behavior he defines it as cooperation, so that opposition by the subject is changed to cooperation at the hypnotist's direction and therefore an acknowledgement that the hypnotist is in charge.

There is yet another way the subject might control the relationship and defeat the hypnotist. He could do what the hypnotist says, but in such a way that he is indicating, "I will *let* you direct me." If he succeeds in this type of behavior he is controlling what happens, since he is indicating that what happens is only done with his permission. Hypnotic technique is structured to deal with this eventuality. In every induction the hypnotist either implicitly or explicitly "challenges" the subject to do, or not to do, something the hypnotist has said he cannot, or can, do. When the challenge is successful, the subject has been forced to concede that he must behave at the hypnotist's direction whether he wants to or not.

These are the essential elements of hypnotic induction: (a) the double-level request which is self-contradictory: do it but don't do it, (b) the acceptance and taking over of resistant behavior, (c) the challenge to the subject to concede that he is not controlling his own behavior. When the process is completed the hypnotist is controlling the subject's behavior, and the subject is acknowledging that he himself is not. If the subject is a fearful person, the hypnotist is in a position to prevent him from reinforcing his fear by his usual style of behavior.

If we examine the various ways hypnosis is used to relieve fear, a common pattern becomes apparent. For example, a patient once came to Dr. Milton H. Erickson with a fear of riding in an elevator. Erickson induced a trance and directed the subject to go to a particular address with the suggestion that he was to be particularly fascinated by the sensations in the soles of his feet on the way there. The patient arrived at the address, still thinking about the sensations, and then discovered that he had ridden an

elevator to reach the address. He rode the elevator back down on his return home. The usual way to look at the resolution of this fear would be to say that the patient's attention was distracted by the concentration on his feet and he rode in the elevator without realizing it. Once having done so, he could do it again. Another explanation is possible, but before discussing it a similar case can be cited.

A woman once came to me for hypnotherapy for various problems, one of which was a fear of taking a shower with the bathroom door closed. She feared that if she closed the bathroom door and showered she would be unable to turn off the water or open the door and that she would drown. She was angry about this silly fear, yet if she attempted to overcome it she found herself tensing up and behaving in an agitated way and so was unable to turn on the shower if the door was closed. I wanted to help her solve this problem to set a precedent for solving more important ones, and so one day while she was in a good hypnotic trance I suggested that one of these days she would realize she had taken a shower with the bathroom door closed.

The following session she came in rather angry. She said that one day that week while drying herself after a shower she noticed the bathroom door was closed and realized she had taken a shower under those circumstances. She thought I had something to do with it, and she was angry at me because she had conquered this fear but gained no feeling of triumph in having done so. It had merely happened. To help her feel she had conquered the fear, I suggested that during her next shower she would feel somewhat afraid and apprehensive with the door closed, but with courage she could overcome this fear. She followed directions and her apprehension vanished after several showers.

Once again, this resolution of a fear could be explained by saying the patient went through a fearful situation without "realizing" she did. Yet this explanation is doubtfully satisfactory. A person may have amnesia for an experience, but at the time of the experience he realizes what he is doing. The essential element here would not seem to be the distraction of attention.

We know that one of the peculiarities of hypnosis is the "post-hypnotic suggestion." When the subject in trance is directed to do something at a later time, he goes into a trance at that time to accomplish the task. Presumably therefore, Erickson's patient was in a trance while riding the elevator. If he was in a trance, he was behaving differently. It seems possible that it was not merely the distraction which lessened his fear, but the fact that he rode in an elevator while behaving differently than he had in the past. He was not reinforcing his fear by his behavior, but he was extinguishing it by behaving differently. Similarly, the woman in the shower was functioning under a post-hypnotic suggestion and so behaving differently than she had previously in a shower. Both cases involve the patient (1) going through the fearful situation while (2) behaving differently. It can be argued that unreasonable fear can only persist if the feelings of fear are reinforced by the behavior of the fearful person. If the person is behaving differently he is feeling differently.

In both these examples the patients went through the fearful situation behaving at the therapist's directions and on his terms. Their behavior was "taken over" by the therapists. If this is typical of the resolution of this sort of fear, one can wonder if it occurs in situations where it is argued that the relief occurs independent of the relationship with a therapist.

One of the current ways to resolve fear is the method of deconditioning,

and an exponent of this idea is Dr. Joseph Wolpe. A full presentation of his method is given in *Psychotherapy by Reciprocal Inhibition* (3), and I will give a partial description of it here. According to Wolpe's theory, fear and anxiety are the result of previous conditioning to fearful situations. The therapeutic task is to decondition or desensitize the autonomic responses of the patient. His ideas developed from experimental work with animals, in which he made them anxious and cured their anxiety by progressively taking them step by step back through the anxiety situation.

After taking a patient's history, Wolpe instructs him to make a list of all the situations which make him anxious. Then he has the patient put the list in order from the least fearful to the most fearful. When this is done, Wolpe has the patient relax and imagine a series of scenes beginning with the least fearful situations. If the patient is afraid of blood, he is relaxed and told to imagine a small bandage with blood upon it, then a small wound with blood, and so on until finally he imagines a hospital full of bloody and wounded soldiers. Wolpe temporarily recesses the procedure the moment the patient indicates any anxiety. In addition, Wolpe sends the patient out to assert himself in interpersonal situations. He apparently has considerable success with his method.

Wolpe's argument is typical of those who follow conditioning theory. He believes he is desensitizing processes which occur inside the individual. If we examine this deconditioning method from an interpersonal point of view, it appears similar to the previous examples of the relief of fear by taking control of a patient's behavior in the fearful situation. Wolpe is a gentle rather than an overtly dominating person, but he takes rather full control of a patient's behavior. The patient must follow Wolpe's directions by making his list of anxiety situations, he must relax or be hypnotized on Wolpe's terms, and he must imagine what Wolpe tells him to imagine. It is Wolpe who describes and designates the fearful scenes, and the patient has only a veto power by manifesting some anxiety. The patient is taken through the anxiety situations in imagination while relaxed or behaving as Wolpe directs. Then he is directed to go out into the realistic fearful situation with strong reassurances, both direct and implicit, that he will now behave differently in those situations. He goes through them with the expectation of returning to Wolpe for congratulations on going through the situation without fear. Although the method is presented by Wolpe as confined to the internal processes of the patient, it seems reasonable to argue that the patient's behavior is "taken over" by the therapist in the process of treatment. (See (2) for a discussion of psychoanalysis from this point of view.)

The usual emphasis in relieving fear with hypnotic techniques is on changing the ideas or emotions of a patient by suggestion. The goal is to distract the patient's attention, shift his perception, or change his affect in the situation. It is argued here that these shifts are a by-product in the relief of fear with hypnosis and that the essential goal is to induce the patient to behave on the therapist's terms in the fearful situation.

If we examine all methods of psychotherapy, a similar pattern can be seen at the most general level whether the therapist is a faith healer, witch doctor, Christian Scientist, Lourdes, a directive therapist, or a psychoanalyst. The process is this: (a) the patient must be persuaded that a change is possible. He does not necessarily need to believe that a change *must* occur, but that it is a possibility. (b) The patient must participate in bringing

the change about so that he has some investment in having it happen. This participation may range from a journey to Lourdes to free-associating during a daily visit to an analyst. (c) The patient must begin to look for and notice changes that do occur.

When we translate this process into interpersonal terms between therapist and patient, it can be said that (a) the patient must be persuaded that the therapist might influence him to behave differently, (b) the patient must participate in having the therapist influence him, (c) the patient must notice that he has been influenced by the therapist and that he is not functioning entirely on his own terms. These steps are also the steps in the induction of hypnotic trance.

We know that a variety of kinds of psychotherapy as well as hypnosis will relieve irrational fear as well as other unpleasant subjective sensations in an individual. It is argued here that the interpersonal context in which these changes take place is one where the therapist is influencing and controlling the behavior of the patient. Further, it is argued that this influence and control can only succeed if the therapist accepts the patient's behavior and defines it as cooperation rather than opposition. If a person is behaving in a fearful way, he will not stop on command. That is like the physician who ordered his patient to stop being nervous. Fearful behavior can be seen as a style of maneuvering other people which results in unfortunate subjective feelings. To control such a person's maneuvers, it is necessary to acknowledge and accept what he is doing and thereby "take it over." Often one can, for example, suggest that a person's fear will increase—momentarily. If he then behaves in a more fearful way, the therapist has gained control of his behavior and so can direct him successfully to behave in a less fearful way. Traditionally it has been said that the therapist is dealing with an increase and decrease in the quantity of fear inside the person, yet it is more apparent that he is setting the terms as to how that person is to behave with him. Since the patient is not setting the terms, he cannot reinforce by his behavior his feelings of fear, and when the fear is irrational it will not be reinforced by the realistic situation.

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A PSYCHOLOGICAL APPROACH THROUGH HYPNOSIS TO CERTAIN PSYCHOSOMATIC PROBLEMS IN DENTISTRY AND MEDICINE[1]

by Lawrence Milton Staples, D.M.D.[2]

The dentist is confronted with many psychosomatic problems, characterized not only by the fears and anxieties of impending dental services, but also by emotional disturbances, which can be a causative factor in rampant dental caries and periodontal disease.

The research work of Samuel Charles Miller (1), Joseph Landa (2), and others (3) calls attention to the high correlation between psychological factors and dental health. Thumb sucking, tongue thrusting, nail biting, grinding and clenching of the teeth, and gagging are some of the dental problems with possible or probable psychosomatic backgrounds. Conversely, certain existing dental conditions may be the direct cause of more or less severe emotional disturbances. There is the young adolescent, usually a female, who because of irregular teeth and malformed jaws develops an inferiority complex, shuns society, and becomes most unhappy and greatly disturbed because of her appearance.

In this same category is the female at age about 50, who would like to pass for 40, but is afraid she looks like 60, because she has lost or must lose most or all of her teeth. Such a person is at odds with the world, fearing that with the loss of her natural teeth she will have lost her youth, femininity, and attractiveness.

The physician and the dentist have long had various methods and medicines for eliminating or controlling organic physical pain. It is only recently, with the consideration of psychosomatic factors, the mind as well as the body, that they have been able to combat nervous apprehension, emotional tension, and the almost morbid anxiety that many of the public associate with the dental office, medical office, or hospital, and which cause many to neglect their teeth and their health.

Dr. Hans Selye (4) and other authorities have advanced the theory that many illnesses are psychosomatic, or are definitely influenced by psychosomatic factors. Selye makes the following statement: "Adaptation to one's surroundings is one of the most important physiological reactions to life." "The capacity of adjustment to external stimuli is the most important characteristic feature of living matter." For many individuals this is undoubtedly true, but we all too often find that there are great differences in the manner in which some people can make these adaptations and adjustments.

Perhaps the greatest problem that the dentist has today in detecting, controlling, and eliminating dental disease is dental pain. Much of the patient's discomfort is "dental pain phobia," imagined by a fearing mind and a weary body, and with no actual physical cause. The elimination or control of the fear of pain, and the tensions resulting from it, and even pain itself, the fear of impending surgery, the elimination of certain habits, phobias and negative attitudes, can be effected to a large degree through hypnosis. The terms "hypnosis" and "psychosomatics" have often erroneously been referred to as if they were one and the same. Hypnosis is one phase of one technique in psychosomatic therapy.

[1] This paper was presented at the annual meeting in October 1958 of The American Society of Clinical Hypnosis, Chicago, Illinois.

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The application of hypnotic techniques in dentistry, as related to pain, is based on the scientifically proved relationship between tension and the pain threshold. The greater the tension, the lower will be the pain threshold, and the greater the pain realization factor (5). The more relaxed one is, the higher will be one's pain threshold and the less the perception of pain. The prerequisite for hypnosis is a condition bordering on complete relaxation. With relaxation comes a feeling of greater self-control, confidence, and security.

The apprehensive and disturbed patient has directed his attention specifically to the discomfort that he thinks he will experience, or on the negative aspects of his problem, whatever it might be. In hypnosis, through suggestion, these thoughts can be directed elsewhere, and new attitudes and new patterns of behavior can be created. Hypnosis helps one to relax more completely than can be done by any other method.

The degree of relaxation and the degree to which one may enter the hypnotic state are dependent upon many factors, not the least of which is the current attitude of the subject toward hypnosis. I am convinced that some failures and the indifferent successes are, in part, due to an inadequate regard for certain important, though elementary, factors.

A subject cannot relax and readily enter the hypnotic state if he has any fears or misconceptions relative to hypnosis. Hence, it is important first to teach the subject what hypnosis, as used in dentistry or medicine, really accomplishes and what it can do for him. This conditioning of the patient, or creating a *state of readiness* for hypnosis, is, in my opinion, the *number one* step of the induction procedure itself. Adequate preparation breaks down many of the patient's resistances to hypnosis, lays a foundation for the procedures that are to follow, gains the patient's confidence, and builds a closer interpersonal relationship, which is so necessary for successful hypnosis. My patient is told that hypnosis is a restful, relaxed state, and that, with his permission and cooperation, I can teach him how to relax and enter this enjoyable, beneficial state. He is informed that I may use the word "sleep," but that he will not be asleep as in night-time sleep; he will have an awareness of his surroundings; he may hear sounds other than my voice, but he is to ignore them and pay attention only to my voice. A clear understanding of this "sleep concept" of hypnosis often leads to a smoother hypnotic induction and prevents the arousing of certain resistances that may occur when the subject equates awareness of his surroundings with a non-hypnotic state. This information regarding "sleep" may also forestall the patient's all too common statement on awakening, that he did not think that he was hypnotized because he could hear other noises, voices, etc. and that he was not "really asleep."

There seems to be a tendency on the part of some dentists to attempt too much or too severe an operative procedure at the initial hypnotic session. This especially true in those cases where only a light trance can be secured, and on those patients who may be a bit skeptical about the merits of hypnosis. If, at this first hypnotic session, the patient can be taught to relax (he often needs to be *taught*, not just *told* to relax), and if he can experience some degree of hypnotic trance, and if some dental service can be rendered without mental or physical discomfort, this session may be called successful both for doctor and patient. Hypnosis is a learning process. The subject can be expected to relax more completely and to go into a deeper trance at future sessions,

when more complicated services can be undertaken.

In this connection, it is well to remember that only about 20 or 25% of individuals are capable of sufficiently deep hypnoanesthesia for surgery or extensive dental work. In the other 75% some chemo-anesthesia is required. This is a factor that should always be considered. We should not let ourselves or our patients lose faith in the efficacy of hypnosis because profound anesthesia cannot be produced in all cases. Hypnosis has other values which are perhaps of even greater importance than anesthesia. The author uses hypnosis in *conjunction* with chemo-anesthetics in most instances, unless the procedure is a simple one or the patient is known to be a somnambulistic subject. With the combination of hypnosis and chemo-anesthetics, we may have confidence in the adequacy of the anesthesia. The patient is relaxed and will awaken free from the tension and fatigue which often follow a session in the dental office. There is the opportunity of implanting in the patient's subconscious mind post-hypnotic suggestions pertinent to the particular case. Relaxation through hypnosis is an adjunct to chemo-anesthesia and vice versa. The merits of one potentiate the merits of the other.

Dr. Milton J. Marmer (7), anesthesiologist at Cedars of Lebanon Hospital in Los Angeles, makes the following statement: "Hypnosis is the only means of anesthesia that carries no danger for the patient. . . . Actually perfect anesthesia can be obtained by employing hypnosis in conjunction with reduced doses of chemical anesthetics." These reductions range in amount from 10% to 90%.

Deep trance, although desirable, is not always absolutely necessary, for much can be accomplished even in light trance. In certain cases, one may be agreeably surprised at the results that are obtainable at the post-hypnotic level from some of those seemingly resistant individuals, who cannot or, for one reason or another, will not, allow themselves to go into a trance. One might raise the question as to whether or not the individual might not actually be in a light trance. Be that as it may, if a subject can be made to close his eyes, shut out distractions, listen attentively, and experience a good degree of relaxation, suggestions may be given as in trance. They appear to reach the subconscious mind, are accepted, and do obtain a favorable post-hypnotic response in the form of a change of attitude.

Case 1

Wolberg (8) relates instances wherein a subject's need for the removal of a disturbing symptom was so great that post-hypnotic response ordering its removal was obtained without actual trance. The following case history appeared to be in this category and refers to one of those individuals, mentioned earlier in this discussion, who faced the loss of her natural teeth. This thought had become a nightmare to her. This person, a female aged about 55, was always a fearful and apprehensive dental patient. Although she was meticulous in her dress and her use of cosmetics, etc., her mouth showed marked evidence of dental neglect. All of her attitudes toward her present dental ills were negative. She *knew* that she couldn't possibly stand the ordeal of the removal of her teeth. All previous dental experiences had been painful, especially the removal of any tooth. She had a very sensitive throat and *knew* that she could never have impressions taken without gagging; because of this gagging tendency, she *knew* that she could never wear artificial dentures, the thought of which horrified her. Everyone that she ever knew who wore dentures, she said, were miserable and looked terrible. She apparently had consulted many dentists in an endeavor to find someone who might perform some miracle so that she might retain her teeth. She had heard that I used hypnosis; she came to me because of this fact (perhaps hoping that, through some feat of magic, her teeth could be saved.) However, along with her

other negative attitudes, she was sure that she could not be hypnotized.

Hypnosis was discussed at some length with the lady. She was told that I was quite sure that it could be of help to her. This did not strike too favorable a note. It was then suggested that, for the time being, I would teach her how to relax, and to the extent that this was accomplished with or without hypnosis, she would feel better, sleep better, and her problems would not seem so many nor so great. She assured me that she was really a relaxed person, although there was little evidence of relaxation. After considerable time and effort, she was persuaded to close her eyes, to stop talking, and to approach a semblance of relaxation by first getting one hand and arm to become loose, limp, and lazy, then the other, and by extending this idea to relax the entire body. The muscular relaxation appeared to increase at subsequent sessions. After the first discussion hypnosis, as such, was not mentioned. After each session, the lady would remark that she had not been hypnotized and that she could not be. At this time, she was told that I was interested only in teaching her relaxation, which she admitted had been quite helpful.

The suggestions given were, as much as possible, an appeal to her ego and vanity. They constituted the assurance that she would look well, be able to talk well, and to eat well, and that she would be as pleased and as comfortable with her dentures as hundreds of other people were, even some of her friends whom she did not think wore them, because they looked so well. These were the thoughts she was instructed to keep uppermost in her mind. After the second session, she remarked: "I don't know why, but I feel differently about wearing dentures. I don't seem to dread the thought of them as formerly, but I don't know how I can wear them with my sensitive throat; I am still afraid that I will gag." Her remarks after the third session were still more favorable, and she appeared quite a different person, as compared with her initial visits. Two posterior teeth have been removed, under local anesthetic plus this "relaxed state" and the patient "lives," and is certainly much happier. This is as far as we have gone to date. There is not too much concern, if, for the present, the lady wants to cling to the thought that she may gag. That problem will be resolved later on.

I do not feel that at any of the sessions the patient was actually in trance, as we usually see it. Other than the more or less complete relaxation, there was no real evidence of actual trance. Any semblance of a test caused her to open her eyes. However, her response is very satisfactory, trance or no trance. It is reasonable to believe that her dental needs were so great that the suggestions offered, all reasonable and all for her welfare, found their way into her subconscious mind, perhaps while in a waking state, and that favorable responses resulted.

Case 2

This patient was a previous failure, for reasons that will be obvious as we consider the case. She was a white female, 40 years of age. The patient was very apprehensive and said she was a very poor dental patient. Her immediate problem was a painful abscessed lower bicuspid. She said that she could not take gas, as it stopped her breathing; novocaine had no effect on her, and it made her heart thump; she had suffered from insomnia for a long time; now, sedatives were ineffective for sleep or to stop pain. On the day previous this lady had traveled some 60 miles to visit another dentist who attempted unsuccessfully to use hypnosis. With such a background of negative attitudes relative to the efficacy of novocaine, gas, and sedatives, one might expect that she would accept hypnosis uncritically. She was told that the hypnotic induction had not been successful because she was too fatigued from her 60 mile journey.

In discussing hypnosis with the patient, it was noted that she had numerous fears and many misconceptions. In relating her experience with hypnosis of the day previous, she said: "I should have gone to sleep, but I didn't. I was told that I could not open my eyes, but I did. I was told that one of my hands would rise up in the air, but it didn't." It was quite apparent that the pre-induction talk had not been adequate, or had been neglected entirely. It was surmised that she may have been rushed in the attempted induction procedure and had been given too many tests, too early. The first dentist had referred her to me for an appointment, saying that he knew that I used hypnosis extensively and taught it at Tufts University School of Dental Medicine. This was a good build-up for me, and added to the prestige which leads to the expectancy for hypnosis. Motivation, another requisite, should have been quite sufficient, for the lady had an aching tooth, and it was her belief that other pain relieving agents were not effective for her. The patient was assured that

the failure of the several hypnotic tests of the previous day was of no importance at all. She was given a kindly, sympathetic pre-induction talk, which apparently removed her erroneous ideas relative to hypnosis, for at this point, she smiled, and said, "You know, I feel better already; I don't have the jitters any more."

The stage appeared set for a successful hypnotic induction, but could a sufficiently deep hypno-anesthesia be induced to permit the removal of an acutely inflamed tooth? She had told me that once long ago monocaine, not novocaine, had been used successfully for an extraction, but that she was terrified at the thought of the needle. She was told that this was an interesting coincidence, and that I used monocaine. For psychological effect, I showed her the capsule with the name monocaine on it; she was told that I considered it a very reliable anesthetic. Permission was asked to use it to supplement the hypnosis if I thought it was necessary. It was suggested that under hypnosis she would not be at all concerned about the needle. She made me promise that I would only use a "teeny weeny bit" of monocaine. Hypnosis was used. Hypno-anesthesia of the area was gained by suggestion. One quarter cc. of monocaine was injected. The badly decayed and much filled crown of the tooth fractured (as was expected), but the root, with attached abscess sac, was removed painlessly. It was "just wonderful," she said.

Adequate patient conditioning and sufficient time for suggestion acceptance and response were factors in the success of this case. This was an example of a patient who, with the use of hypnosis, became an enthusiastic cooperative patient.

Thumb sucking, tongue thrusting, nail biting, and bruxism are some of the other dental problems with a probable psychosomatic background, wherein hypnosis has proved very helpful. The question as to whether these problems come within the jurisdiction of the dentist or the psychiatrist is a controversial one. Many of these conditions are faulty habits. According to Drs. Solovey and Milechnin (9), certain symptoms may persist after recovery from a psychological disorder because they have become habits, which can only be eliminated by education. Many of these individuals can be taught, while under hypnosis, to become more relaxed, to lessen tension, and to be given the motivation for the stopping of the habit and for the forming of a new pattern of behavior. Whether treatment should be by the dentist or by someone other than the dentist should depend upon the individual case. The patient's history and examination should determine the type of treatment required and by whom it should be given. Psychiatric treatment may be impractical for various reasons, and if these patients are not treated by the dentist many will not be treated at all.

W. W. Bauer, Director of the Bureau of Health Education of the American Medical Association, gave the following definition of psychosomatic medicine which likewise applies to psychosomatic dentistry: "Take three parts of the kindliness, personal interest, and the knowledge of human nature of the old-fashioned horse-and-buggy doctor, mix well with the spirit of service and self-sacrifice and apply liberally to the human factor in any illness." In other words, Psychosomatics is not a new specialty. It has been known for a long time without its present name.

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HYPNOTIC PHENOMENA, SUGGESTION, AND ONEIRIC ACTIVITY[1]

by Galina Solovey, M.D.,[2] and Anatol Milechnin, M.D.[2]

The resemblance between the procedure a mother employs to lull her child and the procedure used by a therapist or experimenter to induce in a direct way a hypnotic emotional state of the positive type in a subject, has led the authors to inquire, in one of their previous articles (1): "Is the state an infant enters on being lulled by its mother a condition of sleep or a hypnotic state of the positive type?"

We are inclined to believe that the mother's lulling generally induces in the child a hypnotic state of the positive type which, after a certain period of time, turns spontaneously into a state of sleep that preserves the nuance of emotion conferred by the lulling.

Similarly, it may be asked whether there is a succession of cycles in the course of the adult's or child's normal sleeping period, that consist in an alternation of ordinary sleep and a hypnotic (autohypnotic) state. The latter would be similar in its psychophysiological properties to the hypnotic state of a certain level of intensity, which is deliberately obtained in an environment of psychotherapy or experimentation, that is, to a hypnotic state that is sufficiently intense to enable the subject to present certain behavior phenomena.

May not the beginning of dreams or other kinds of oneiric activity indicate the passage from ordinary sleep into an autohypnotic condition? In its turn, the cessation of the periods of dream activity may be understood as a return to ordinary sleep.

The elucidation of these points may not only give a wider view of the hypnotic state as an integral part of everyday living, but also provide a new standpoint for the understanding of the nature of hypnotic phenomena.

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The investigations of Kleitman, Dement, Aserinsky, and Wolpert (2, 3, 4, 5. 6) have demonstrated the existence of cyclic variations in nocturnal sleep. Analyzing electroencephalographic tracings taken continuously during the night, these authors defined four categories or stages in the EEG pattern of sleep. The first stage is characterized by a low-voltage, relatively fast pattern with absolute lack of spindle activity. This is precisely the phase of sleep in which dreaming takes place, and which is called a "light" sleep. The second, third, and fourth stages correspond to variants of "deep" sleep with no dream activity, each of them having certain electroencephalographic peculiarities. In the course of nocturnal sleep there are cycles of light and deep sleep which are repeated 4-6 times in a 6-9 hours' sleep and have an average duration of about 90 minutes. One fifth to one third of the sleeping time is invariably spent in a condition of light sleep with dreams. The fact that most of the dreams are forgotten on awakening may cause a person to be sure that he has not dreamed at all that night or that he never dreams.

There are grounds for stating that this phase of light sleep with dreams is nothing else but a form of autohypnotic state.

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[1] Read at the Second Annual Scientific Assembly of The American Society of Clinical Hypnosis, October 1959, at Chicago, Illinois, and published simultaneously in Spanish in the first number of *Revista Latino-Americana de Hipnosis Clínica*, the official organ of Federación Latino-Americana de Hipnosis Clínica.

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A comparison of electroencephalographic studies carried out during normal sleep and under a hypnotic state, deliberately induced in an environment of experimentation, has yielded some interesting information, in spite of the fact these studies were made by people with differences in methodology and criteria.

Some research workers, like Loomis, Harvey, and Hobart (7), Blake and Gerard (8), Ford and Yeager (9), True and Stephenson (10), agreed that the induction of the hypnotic state, even with considerable emphasis on suggestions of sleep, does not bring about the electroencephalographic pattern of ordinary sleep. Barker and Burgwin (11, 12) demonstrated that the EEG of real sleep may appear in a person under hypnosis, but only when the operator ceases to maintain an active contact with the subject, leaving the latter in a condition of muscular relaxation and passivity.

Studies by Darrow, Henry, Gill, and Brenman (13, 14) considering the phase relationships in EEG from different areas of the brain, show that the EEG patterns obtained under a hypnotic state are identical to the ones taken in a condition of drowsiness or light sleep. It is interesting to indicate that the EEG obtained in the cataleptic state in guinea pigs and other animals by Schwartz and Bickford (16) is similar to the EEG of light sleep. (It must be kept in mind that the EEG of "light sleep" corresponds, according to the findings of Dement and Kleitman (3), to the period of "sleep with dreams".)

There are still no data regarding the variations of the EEG pattern in the various levels of hypnotic depth. A study of the EEG in the maximum of intensity of the hypnotic emotional state (15) or stuporous state would be of special interest.

The amplitude of the knee-jerk reflex is another index that has been considered in the investigation of the relationship between the hypnotic state and sleep. According to the classical research work by Bass (17) this reflex has the same amplitude in the hypnotic and the waking states, that is, it is not diminished in the hypnotic state, as in sleep. But Koster (18) made it clear that Bass' observations were made in a laboratory of psychological experimentation, an environment that was not favorable for the development of sleep. When Koster repeated the investigation in the tranquility of his consulting room, the subjects under hypnosis showed the same diminished knee-jerks that are found in sleep.

Since this particular kind of study can be easily made in the course of hypnotherapeutic work, the authors observed the knee-jerks of a considerable number of their patients. Schematically, it was found that in the first phase of intensity of the hypnotic state, the knee-jerk does not differ from the one in a waking condition. In the second phase of intensity of the hypnotic state, defined by a change in the external aspect of the person's behavior, with retardation of movements and reactions (15), the knee-jerk is considerably diminished. Finally, in the stuporous state this reflex disappears, as was seen in the only two subjects who were led to the stuporous condition. Both these subjects had presented a normal reflex in the first phase of intensity of the hypnotic state, and a diminished one in the second phase.

This experiment shows us that the knee-jerk varies according to the intensity of the hypnotic state, and that the kind of reflex found in sleep appears in only one of the phases of intensity of the hypnotic state of the positive type.

* * *

The autohypnotic state, which we believe constitutes a part of the nor-

mal cycles of nocturnal sleep (corresponding to the phase of "light sleep"), is only one of the many forms of the hypnotic emotional state.

The hypnotic state, in general, has been defined as the peculiar psychophysiological condition that is caused by emotional states of increased intensity (15). Thus understood, the hypnotic emotional state is common to human beings and higher animals. Obviously the hypnotic emotional state is not a unitary or homogeneous condition, since, in a certain level of its intensity, all the heterogeneity of affective life in general may be obtained in it.

The multiformity of the hypnotic emotional state may be illustrated by mentioning examples as dissimilar as the condition experienced by the infant on receiving the caresses and lulling of its mother when it needs them (19), the state that comes about in certain people on merely seeing a mouse or a theatrical hypnotist (the latter having only one advantage over the mouse, the power of speech, which permits him to obtain certain behavior phenomena) (20), the condition experienced by some people when they are fishing, listening to music, or praying (this last situation being related with the concepts of Kavanah (21), Nirvana, etc.), the emotional state caused by a fright, a great joy, etc.

Yet, fundamentally, two kinds of hypnotic emotional states may be recognized. One results from stabilizing (trophotropic) emotions. with predominant participation of the parasympathetic system. The other results from disturbing (ergotropic) emotions, the sympathetic system predominating. These kinds of emotion are in a continuous intertransformation, according to the circumstances and stimuli that influence the person. Both basic kinds of emotion have an ample gamut of emotional nuances.

In spite of their differences, the hypnotic emotional states of both kinds with all their nuances have very many attributes and phenomena in common. The likeness between them becomes greater as the emotional intensity increases, till they become practically identical in the maximum of emotional intensity or stuporous state (15).

All the emotional states may have varied levels of intensity, that is, they may correspond to different phases of depth of the hypnotic emotional state, enabling the person to present various behavior phenomena.

The capacity to present some behavior phenomena or others in the hypnotic state depends in the first place on the intensity and kind of emotional state, though it is also related to the personal traits of the subject and his tendencies in reacting to various situations. The greater or lesser facility for presenting certain phenomena in one or another level of intensity of the hypnotic state is not permanent but may change in the same person not only in different periods of his psychophysiological development but also under various circumstances that affect his general psychophysiological condition, such as inanition, exhaustion, diseases, etc.

Under favorable circumstances, an emotional state of a certain intensity may pass into a state of sleep. This passage from an emotional condition into sleep has already been indicated by different authors. Thus Levin (22) says that in ordinary life-situations the tension that precedes crucial events is often associated with sleepiness. Bateson and Mead (23) describe the falling asleep of a Balinese when something strange and alarming enters his life, as in the case of a thief who quietly enters a sleeping state while his case is being judged.

This change of emotional states of certain intensity into sleep comes about not only in human beings, but

also in higher animals, as may be seen from Pavlov's (24) well-known experments referring to delayed conditioned reflexes. When a hungry dog receives the signal that food is to come, but the food does not arrive in due time, the animal develops considerable emotional tension because of the vital significance of the food in his case. This emotional tension brings about a stuporous or cataleptic condition, from which the dog may later pass into sleep.

In psychotherapeutic and experimental settings, the authors have observed dozens of times, in adults and in children, the passage from a hypnotic emotional state of the positive (trophotropic) type into a state that at least has the external characteristics of normal sleep, even such typical ones as snoring and conjugate movements of the eyes at certain moments.

This change from the hypnotic state into sleep has already been recognized by various authors. Among others, Kleitman (25) admits that the hypnotic state "sometimes passes into real sleep, thus creating confusion concerning the relation of these states to each other." The aforementioned investigations of Barker and Burgwin (11, 12) confirm this transformation with EEG tracings.

Various authors, Braid, Bernheim, Pavlov, and others, conjectured the existence of a relationship between the hypnotic state and sleep. White (26) declared that a "dash of drowsiness" is necessary for hypnosis and that "the peculiarities of hypnotic behavior . . . can all be plausibly related to the changes which take place in drowsiness . . . " Barker and Burgwin (12) state that the difference between sleep and hypnosis merely lies in the fact that there are no "contemporary interpersonal relationships" in the sleeping state, whereas in hypnosis a "thin line of interpersonal communication" still remains.

Other authors have tried to make use of the condition of normal sleep for different purposes in connection with their concepts about the hypnotic state and its relationship to normal sleep. For example, Wetterstrand (27) practiced, at the end of the past century, a therapeutic procedure that consisted in giving suggestions to the patient during nocturnal sleep. Recently, A. Barretto (28) has recommended the use of such nocturnal suggestions to correct undesirable habits in children. Fresacher (29) describes a "way into the hypnotic state" which consists in establishing contact with the person while he sleeps. McCartney (30) says in this respect: "In fact, spontaneous somnambulism produced in normal sleep can be transformed into hypnosis, and this in its turn can be terminated in normal awakening or normal sleep. The physician can not infrequently influence by suggestion a normally sleeping person and transport him into hypnosis without awakening him. It is still easier, in the reverse direction, to transform hypnosis into ordinary sleep by suggestion." Liébeault (31) obtained the phenomenon of catalepsy in sleepers under experimentation.

Recently Barber (32) carried out a series of experiments on 22 subjects who volunteered to be submitted to "a psychological test" during sleep. The experiments consisted in giving the sleeping subjects seven suggestions in succession, referring to hand-levitation, incapacity to separate the clasped hands, anesthesia, feeling of thirst, etc. Later these tests were made in the same subjects under a hypnotic state induced by the usual procedures. A comparison of the results obtained in both cases makes Barber conclude that the hypnotic state is intimately related to the state of light sleep.

The writers have attempted on 18 occasions to establish contact with sleepers, adults or children, who had

not been forewarned in any way. This was done during routine visits in hospital wards. The hypnotic contact was not achieved in any case, and no hypnotic phenomena were obtained. But in two special cases of patients, whom we had previously led into the hypnotic state for the treatment of emotional disorders revealed by somnambulism and night terrors respectively, we were able to establish a hypnotic contact while they slept, at the precise moment when they carried out their peculiar oneiric activity. If we admit that the phase of sleep with dreams or other forms of oneiric activity constitutes a passage into an autohypnotic state, it may be said that we changed the autohypnotic state of these sleepers into a hypnotic interpersonal relationship. Once this relationship was established, we could modify and prolong the oneiric activity, obtaining in both cases the same behavior phenomena that we had previously achieved in them under a deliberately induced hypnotic state. In the case of the somnambulist, even a "regression" to a certain period of childhood was attained (1). After the experiment both subjects slept normally and in the morning could not recall what had happened.

Such an influence on the oneiric activity of a person is often exerted by the mother who sees her child fretting in its sleep. Two or three tender words are enough to give another emotional nuance to the child's oneiric activity (33).

It is known that there are exceptional people who, once their sleep is turned into an interpersonal relationship, can rapidly and easily present varied hypnotic phenomena, such as anesthesias, catalepsy, regression, hallucinations, etc., with subsequent amnesia. Dr. Sebastian Petrescu (34) showed us a remarkable hypnotic subject who revealed an extreme facility both for developing rapidly a deep hypnotic state and for presenting, under a light hypnotic state, varied hypnotic phenomena. At the same time it was sufficient to say one or two words to establish a hypnotic relationship with this person during sleep, after which different hypnotic phenomena and even complex activity could be obtained, with complete amnesia for this experience. Furthermore, the subject was known to get up spontaneously at night and carry out various tasks in an oneiric state, remembering nothing about them the next morning.

Bernheim (35) described similar cases of coordinated and complex spontaneous oneiric activity, such as the doing of household tasks or a scholar's homework, the writing of music, etc., followed by oblivion. Koster (18) mentions a physician who assisted a difficult delivery in a "sleepwalking" condition and then continued his sleep, forgetting everything on awakening.

Evidently, this kind of activity constitutes a very special form of oneiric activity in general, and takes place only in certain bio-psychological types of people. Surely, the same biotype presents extreme forms of behavior in the deliberately induced hypnotic state. It is obvious that the behavior of such a biotype cannot be taken for a model of either oneiric or hypnotic behavior in general, though such people are often favorite subjects for exhibitions and experiments, often providing material for scientific studies and theories about hypnosis.

The passage from the hypnotic state into sleep and the possibility of transforming certain phases of sleep into a hypnotic interpersonal relationship help to understand the efficacy of some procedures or techniques of hypnotic induction which make use of mechanical stimuli, such as monotonous sounds, twinkling lights, etc. Possibly these stimuli bring about a sleeping condition, in which a hypnotic

interpersonal relationship is later established.

Thus, to the two fundamental ways of hypnotic induction (intensification of emotional states): the direct and the indirect way (20) a special variant may be added, namely, the induction of sleep (intensification of a "trophotropic" condition with parasympathetic predominance), turning it later into a hypnotic interpersonal relationship.

* * *

Pavlov (24) understood the hypnotic state to be a partial sleep and believed that the greatest depth of the hypnotic state is nothing but normal sleep. He defined "partial" sleep by the presence of a "point of watchfulness" in the cerebral cortex, as in the cases of a deeply sleeping mother who can perceive any sound coming from her baby or the miller who wakens immediately as the noise of the mill ceases.

We understand that, if such a definition is accepted, all sleep would constitute a hypnotic state, since normally there is no sleeping condition in which a person is totally insensitive to external stimuli. As Koster (18) rightly indicates, if an absolute lack of contact with the external world is required for the recognition of sleep, it must be admitted that nobody sleeps, but can only be in an intermediate state between sleep and wakefulness.

On the other hand, there may be under exceptional circumstances what we believe really deserves to be called partial sleep. Such are the cases of individuals who must make use of some of their physical and intellectual reserves to continue carrying out a certain activity, although in many aspects of their physical and psychological functioning they are very probably in a state of sleep. This condition may be equated to an autohypnotic or somnambulistic state. A well-known example is the case of Lindbergh, in his non-stop, 33½ hours', transoceanic flight in 1927, making immense efforts not to fall asleep and proceeding as if in a semi-sleeping state. Similarly, the participants in contests of endurance, who continue playing the piano or dancing with changing partners and orchestras for more than a hundred hours, must maintain their activity for many hours in a state of half-sleep or somnambulism. Literature contains very varied cases of people who, under circumstances of vital importance or great responsibility, have carried out their tasks for a long time in a partially sleeping condition.

Can not these cases be referred to an autohypnotic state that helps the person to mobilize to a maximum degree his physical and psychological resources for the fulfillment of his activity? The achievement of a certain increase of capacities of one kind or another (such as muscular strength, resistance, etc.) under a deliberately induced hypnotic state in an experimental setting, is practically insignificant when compared with the possibility of mobilizing extraordinary resources that may be revealed under exceptional circumstances in life.

* * *

It is known that the deliberately induced hypnotic emotional state has a very wide margin of variations in emotional intensity. The peak of intensity of the "positive" or stabilizing emotional state may be described as a "parasympathetic shock," consisting in a stuporous condition with a considerable depression of psychological and vegetative functions.

Gross variations in the level of emotional intensity bring about certain psychophysiological changes in the individual which, in their turn, enable him to present different forms of behavior. The capacity to present one or another form of behavior may remain

latent till external and internal factors come to reveal it.

The phase of sleep with dreams, which we understand to be an autohypnotic emotional state, remains within certain relatively narrow limits of emotional intensity. Hence, it may be identified with only a fragment of the considerable extent of variations in emotional intensity that may be found in the deliberately induced hypnotic emotional state. Possibly, this fragment is somewhere near the borderline between the first and second phases of hypnotic depth (15).

In connection with this, the state of sleep with dreams enables the person to have only a part of the behavior phenomena that may take place in the deliberately induced hypnotic emotional state. This part includes the equivalents of some of the more spectacular hypnotic phenomena.

One of the important peculiarities of the hypnotic state is the considerable facility for passing from one of the basic types of emotion into the other. The autohypnotic phase of sleep corresponds fundamentally to the hypnotic emotional state of the "positive" type. Both have the nature of a trophotropic condition, that is, of a state with considerable predominance of neurovegetative activity mediated through the parasympathetic system, which favors the functions of anabolism and recovery. But, both in the autohypnotic phase of sleep and in the deliberately induced hypnotic state, there may easily be a transformation not only of emotional nuances, but also of the basic type of emotion, under the influence of external and internal factors. Thus, there may be oscillations to emotions of the "disturbing" or "ergotropic" type, mediated predominantly by the sympathetic system, which may have varied nuances, appearing in the manner of nightmares, night terrors, elation, etc.

These disturbing emotions cause varied psychosomatic phenomena: increase in heart rate, accelerated breathing, increase in blood pressure, sweating, facial expression of anguish, etc. The ideational contents giving rise to this vegetative storm may or may not be remembered by the person.

Such emotions may exert an unfavorable influence on the individual's physical and mental health. For example, the sudden increase in blood pressure may be very harmful to patients with vascular or heart disease. Possibly some sudden deaths during the night are due to an emotion arising from a dream which surpasses the person's threshold of tolerance.

This fact should be taken as a warning regarding the artificial stimulation of disturbing emotions under a deliberately induced hypnotic state in certain types of people, particularly cases of heart disease, for whom these emotions may be dangerous, even fatal. This is the only real danger that may be recognized in hypnosis. The disturbing emotions which are really experienced in the hypnotic state (not being mere role-enactment) may be uncontrollable. In one of our cases, we had to resort to the use of injections of sedatives.

Both in the autohypnotic state of sleep and in the deliberately induced hypnotic emotional state, the experiences of disturbing emotions may exert special effects on people with certain psychopathological tendencies. Thus a disturbing emotion may bring about functional paralyses or other symptoms in individuals of the hysterical type. In one of Janet's cases, mentioned by Bunge (36), a young woman wakened with paralyzed legs after having been "paralyzed with fright" during sleep. The same author mentions another case where the opposite happened, the recovery of a functional paralysis of a girl's arm after a dream in which the child had been beating with this arm a cow that

had attacked her little dog. Rafael Rodríguez (37) reports a patient whose psychopathological condition, consisting in a second personality, began after a severe nightmare. Platonov (38) mentions in his book several cases of severe obsessions that had their origin in a dream with disturbing emotions. A very long list might be made of similar examples of acquisition and loss of symptoms during sleep.

On the other hand, the literature on hypnosis also contains very many references to similar happenings in the deliberately induced hypnotic state, in people with pathological predispositions. Therefore, the dangers of hypnosis do not differ from the dangers of sleep.

* * *

The psychophysiological functioning of a person who is dreaming, similar to that of a person on the borderline between the first and second phases of intensity of the hypnotic emotional state, is characterized by a reduction in critical sense, an increase in imagination, a tendency not to differentiate between one's own thought processes and external reality (leading to visual, auditory, cenesthesic, etc. hallucinations), hypermnesias, amnesias, transidentifications, etc.

In the case of physical oneiric activity (somnambulism) the peculiarities of the sleeper's physical behavior result from the same psychophysiological changes. Regarding this, Koster (18) has stated that "essentially there is no difference between the condition of a hypnotized person and that of a sleepwalker. The same curious symptoms are found in a sleepwalker as in a hypnotized person."

In dreams the logical relationships are altered, and the sleeper accepts with full conviction the most absurd reasons when he needs them. This same peculiarity permits people to accept, under certain circumstances, the most extravagant suggestions in the hypnotic state. At the same time, imagination becomes so vivid that the represented images seem to be real facts. Wolberg (39) describes the spontaneous fantasies of subjects under a deliberately induced hypnotic state, who imagine themselves turned into birds or see the boundaries of the room extended to infinity, etc., and declares that "this type of imagery is more related to sleep than to waking life, and mechanisms of condensation, substitution and symbolization are often utilized as in dreams."

Gosaku Naruse and T. Obonai (40) compared, on the basis of self-observations, the images that appear in a condition of drowsiness (hypnagogic images) with hypnotic hallucinations, finding a considerable similarity in the processes of association in the hypnagogic and hypnotic conditions, as revealed by the presence of the same kind of "fusion and decomposition" of the images.

Already Kretschmer (41) had identified the psychological functioning of the hypnotic state with that of dreaming, applying to both cases the term "hypobulic psychological functioning."

In dreams it is possible to recall facts that were forgotten in the waking state (hypermnesia). For example, a dreamer may remember where he put an object believed to have been lost. Such an increase in memory is well known in the hypnotic state.

The much-discussed hypnotic phenomenon of "age regression" is a psychological experience that often comes about spontaneously in dreams. A person may see in a dream individuals and places which, according to the testimony of relatives, were really related to the period of his infancy, remaining forgotten.

The hypnotic phenomena of transidentification, role-enactment, and multiple personality, are commonly found in dreams. We have already cited a case of multiple personality that had

its origin in a dream, persisting later in the waking state as a pathological condition.

Such a confrontation of psychophysiological peculiarities in the period of dreaming and the hypnotic state could be made very long. It is enough to say that it is difficult to think of any psychophysiological phenomenon in dreams that cannot be reproduced in the deliberately induced hypnotic emotional state.

All these psychophysiological peculiarities and the behavior phenomena that result from them unveil to a certain extent the complexity, the extent, and the possibilities of our psychophysiological functions and capacities. These psychophysiological peculiarities and the potential phenomena constitute an integral part of the conditions of a certain emotional intensity, indifferently as to whether these conditions constitute states of dreaming or a deliberately induced hypnotic emotional state.

A point of especial interest concerns precisely the factors that come to reveal these potential psychophysiological peculiarities of a person, either while dreaming or in a deliberately induced hypnotic condition.

For long it had been said that dreams are always initiated by external or cenesthesic stimuli that act on the dreamer. The investigation by Dement and Wolpert (4) definitely disproves this supposition. This study, carried out in a university environment, shows that the periods of dreaming "constitute an intrinsic part of the cycle of sleep, and not the effect of a disturbance from outside," since no stimulus acting on the sleeper when he is *not* in the phase of sleep with dreams has been able to initiate a dream. On the other hand, the stimuli provided when the person is already dreaming (this fact may be recognized by the presence of conjugate movements of the eyes and a characteristic EEG) may exert a certain influence on the contents of some part of the dream. That is, in the latter case, the stimuli may be incorporated in a greater or lesser extent into the dream.

An illustrative example of incorporation of an external stimulus into a dream, given by Dement and Wolpert (4), is the case of a dreamer on whose back was projected a spray of cold water from a syringe 10 minutes after the beginning of his conjugate eye movements. On being awakened 30 seconds later, this person said that he had been dreaming about a relatively long and complex theatrical representation when, at a certain moment, the leading lady stumbled and fell before him. He saw that water was falling from the roof on her back. He reached out and felt water on his head and back. Then he dragged her to a side of the stage and looked at the ceiling, seeing that the roof was leaking. When he was beginning to close the curtains, he awoke.

For these investigations, the aforementioned authors made use of three external stimuli: a pure tone, which was incorporated by 9% of the dreamers, a light projected on the subject, which was incorporated by 23%, and a spray of cold water, as in the previous example, which was incorporated by 42%. At the same time, they studied the effect of cenesthesic stimuli, making their subjects abstain from drinking liquid for 24 hours or more before being observed in their sleep. In spite of the fact that these subjects were extremely thirsty when they went to sleep, there were no dreams with direct reference to thirst or drinking. At the most, in 33% of the dreams, there was a vague reference to liquids, such as the advertisement of a certain brand of beer, or the act of pouring milk into a can.

All this indicates that the dream, with its peculiar psychophysiological phenomena, is a part of the cyclic

variations that constitute a physiological law of the sleeping state, not depending on external or cenesthesic stimulation. In the best of cases this stimulation may only be incorporated into a pre-existing dream.

It is probable that the contents of dreams are directly related to the associations and conditionings of the person with the type and nuance of emotion that predominated before going to sleep. We believe that the dominant type and nuance of emotion in the period of dreaming are fundamentally important both in the production and cure of psychopathological conditions. The purpose of psychotherapy consists precisely in getting the patient to experience a desirable type and nuance of emotion, so that this experience may confer the corresponding emotional tint to the person's dreaming period, thus favoring the mobilization of his resources of recovery, adaptation, etc.

* * *

As has been said before, the period of sleep with dreams may be considered one of the many forms of the autohypnotic state, having the same psychophysiological characteristics that are found in the deliberately induced hypnotic state of a certain intensity.

The difference between both forms of hypnotic state merely lies in the possibilities that result from the interpersonal relationship that exists in the deliberately induced hypnotic state, making possible the use of the spoken word for the purpose of creating a certain psychological situation, in order to obtain behavior phenomena. Furthermore, this relationship may be used to stimulate the development of a greater intensity of the hypnotic emotional state than is found in sleep. This intensification gives rise to new attributes and phenomena of the hypnotic state, which do not exist within the limits of emotional intensity that characterize the autohypnotic state of sleep.

Under propitious circumstances, the autohypnotic state may be changed into an interpersonal hypnotic relationship, thus becoming identical to the deliberately induced hypnotic state. This may happen in all kinds of autohypnotic states, including the one that corresponds to the oneiric phase of sleep.

All the phenomena of behavior that may be attained both in the oneiric autohypnotic state and in the deliberately induced hypnotic state are nothing else but the result of the psychophysiological condition which is brought about by an emotional state of a certain intensity. It has been stressed that in the oneiric state this behavior comes about spontaneously and is due to internal psychophysiological causes. External or cenesthesic stimuli can do no more than break into an oneiric activity that is already initiated and add a mere detail to a limited part of this activity. Even this effect may be found only in a certain percentage of cases, depending on the nature of the stimulus, the circumstances in which it acts, and possibly on the personal tendencies of the individual to react in the face of some stimulus or another.

Similarly in the deliberately induced hypnotic state the verbal or extra-verbal stimuli (suggestions) do not create the psychophysiological capacities of this state, but may merely reveal them and to some degree channelize them in a certain direction on some occasions. Direct suggestions, in the strict sense of the term, probably have, in the best of cases, the same percentage of effectiveness as the direct external or cenesthesic stimuli acting within the oneiric state.

Doubtless there are great individual variations in the capacity to react in the face of direct stimuli with the pre-

sentation of some phenomena of behavior or others.

Certain people have, as a personal trait, an extreme facility for responding to direct suggestions with some phenomenon of behavior. These exceptional individuals, with an extreme biotype possibly characterized by a considerable emotional lability and probably including psychopathological cases, obviously cannot be taken to represent hypnotic behavior in general (42).

* * *

In the deliberately induced hypnotic emotional state the presentation of behavior phenomena may take place in two ways: (1) *Spontaneously,* with no suggestion whatsoever from the operator (43, 44, 15). These phenomena differ in accordance with the depth of the hypnotic state, being in a certain level of hypnotic depth very similar to, or possibly identical with, the phenomena of oneiric activity. In deeper levels approaching the stuporous state, other phenomena may be observed, such as catalepsy, spontaneous anesthesia, etc. (2) *As a response to suggestion.* The suggestion is to be understood as a channelization in a certain direction of the psychophysiological capacities of the hypnotic state.

Regarding the first manner of appearance of hypnotic phenomena, there are many examples in literature of oneiroid imagery taking place when a subject has been led into the hypnotic state and left in this condition, with no suggestions at all (39, 45). We have found that, in such a case, the stimuli of external origin have the same kind of influence on the hypnotic state as on the dream activity in normal sleep.

The authors carried out a tentative study of the effects of external stimuli on people in a hypnotic state of a certain intensity. Our subjects were nine of our patients, who were receiving psychotherapy of the type of a "prolonged hypnotic sleep." The hypnotic state was induced in them by means of a procedure of relaxation and maintained for about two hours by an alternation of 1-2 minute periods in which we talked to the person about his being comfortable . . . resting more and more deeply . . . etc., and 5-7 minute pauses in silence. On different occasions, when the period of silence was prolonged to 10-14 minutes, we found that four of the subjects entered an oneiroid condition, with conjugate movements of the eyes (which according to the discovery of Aserinsky and Kleitman (6) is an index of the presence of dreams). In fact, when we made these subjects pass into a lighter hypnotic state after they had been having eye movements for some minutes, and asked them to tell us their recent experience, the subjects gave us material of an oneiroid type, which appeared to have no difference with natural dreams. Then, in a subsequent period of eye movements under hypnosis, we gave the subject a soft musical stimulus, playing a record for 5-10 seconds. After 20 to 30 seconds later we made this person pass into a lighter hypnotic state and tell us his experience. Of the four subjects who had shown eye movements, only two incorporated the musical stimulus into their oneiroid activity in the first experiment, one incorporated it in the fourth experiment, and in one we could find no hint of incorporation in the eight tests we performed with him.

For example, one of the subjects reported her oneiroid experience saying that she had seen herself in a street in Shanghai by a store, waiting for her sister. She was looking carefully at the faces and clothes of all the passers-by and the passengers of the rickshaws in search for her. Soon she saw that in one of these vehicles sat her sister, embracing the young man with whom the latter was in love. On her sister's

wrist was a watch that was playing soft music at that moment. It amazed her to learn that a wrist watch could contain a music box. The couple disappeared in the crowd, but the music from the wrist-watch could still be heard.

Of the five subjects who did not have eye movements, three seemed to be unable to develop a sufficient hypnotic depth to pass into an oneiroid condition. The other two, we believe, passed very rapidly into a stuporous state, in which there is no such oneiroid activity. These last two had spontaneous analgesia to a pin-prick and, although music had been played to them for 5-10 minutes, they did not recall having heard it on coming out of the hypnotic state.

* * *

Suggestion under the hypnotic state is nothing more than the confluence of verbal and non-verbal stimuli which, on being given rightly, reveal and channelize the pre-existing psychophysiological capacities, which the person has at that moment as the result of an increased emotional intensity. These capacities persist while the individual is in the condition of increased emotional intensity and vary with the changes in this intensity.

Most of the behavior phenomena that may be revealed through adequate suggestions are nothing else but the phenomena of behavior that come about spontaneously in different forms of the hypnotic state.

In order to obtain through suggestion a certain hypnotic phenomenon the suggestion must be given in such a way that it will bring about in the person a psychological process that favors the appearance of this phenomenon, this psychological process encompassing both mental representations and emotional reactions.

It is known that direct suggestion is rarely effective for obtaining hypnotic phenomena. Usually, the suggestion must be accompanied by rationalizations or comparisons in agreement with the subject's convictions, tendencies, previous experiences, and common sense. When psychosomatic phenomena are sought, such as increase in heart rate, changes in digestive functions, etc., it is necessary to attain, in the same manner, an adequate emotional reaction (46, 47). According to the way the suggestion is given, the desired phenomenon may not take place, even in a person who is capable of presenting it, or there may be differences in the phenomenon attained.

Barber (48) gives a very clear example of the difference in the presentation of a certain behavior phenomenon in relation to different ways of giving the corresponding suggestion. In his experiment the subjects under hypnosis were first given the suggestion that a certain chair was no longer in the room. When the subjects began to walk around the room, they carefully averted their eyes from the chair and walked around it. They evidently appeared to be "playing the role" of not seeing this chair. But on another occasion when the experimenter reinforced the suggestion by simulating, with appropriate noises, that the chair was lifted, carried away, and set down in the next room, the subjects behaved as if the chair had really been removed. Walking under hypnosis, they bumped directly into the chair, bruising their legs. On the basis of this inadequate experiment and others, Barber concludes that hypnotic behavior takes place in agreement with the restructuring of the perceptions and convictions of the subject.

The creation of a propitious psychological process is particularly important for the achievement of the hypnotic phenomenon of analgesia for clinical or experimental purposes.

In a previous article we mentioned the case of a child who, in spite of having received a suggestion that it

would feel no pain from dental work, began to complain while the burr had not yet touched its tooth, although at the same moment it paid no attention at all to the strong compression we were exerting on its finger, about which no suggestion had been given (47).

It is known that complete analgesia is an intrinsic part of the deepest hypnotic state, where all suggestion of analgesia is superfluous. But in the beginnings of the hypnotic state, that is, in the hypnotic relationships of daily life, analgesia may also be attained through an adequate manipulation of the stimulus-situation. The feeling of pain, as Anojin (49) says, is strictly subjective.

Of course, there can be no standard technique for creating a psychological situation propitious for the achievement of analgesia or any other phenomenon. A considerable flexibility of procedure is required, to adapt it to every individual case. Thus Bernheim (50) succeeded in obtaining analgesia by making the patient breathe once or twice into a chloroform mask, and then changing the chloroform for some inert liquid, dropped on the mask. The "chloroformic narcosis" continued deepening in spite of this substitution, purely through a suggestive effect. This experiment opened a path for the use of small quantities of chemical anesthetics for surgical purposes.

Dr. Casullo Devoto (51), who has a very considerable experience in the achievement of analgesia in children, says that there is no child, however rebellious, in whom he cannot achieve sufficient hypnotic analgesia for dental work or tonsillectomy. For example, he explains to a small child that the flask in his hand has some wonderful water that, when it touches your body, makes you feel no pain in that place. Of course, when there is no pain there is nothing to be afraid of. As a demonstration of such a marvelous effect, he sprays ethyl chloride on the child's hand and sticks a needle into that spot, so that the child may be assured that there is no pain. Then, if dental work is to be performed, he gives the child plain water in a flask like that of ethyl chloride and tells it that, when the liquid is taken into the mouth, the teeth absorb it like a sponge, and feel no pain, just like the hand did. In tonsillectomy cases, the child is asked to "bubble" or gargle with the liquid. The conviction that there will be no pain makes the patient lose all fear and have confidence in the operator. It becomes very easy to achieve "relaxation" and to reach a sufficient depth of hypnotic intensity, with the attainment of the necessary analgesia.

The authors performed an experiment on two subjects who could not achieve analgesia for dental work under the hypnotic state, by means of suggestions and simple rationalizations (such as indicating with the finger an area of the skin and saying that it is frozen, etc.). In agreement with Dr. Einstein, dentist, an anesthetic injection was simulated by bringing a hypodermic syringe to the patient's mouth and touching his gum with a bit of cotton soaked with ether. At the same time he was urged to "relax." In both cases sufficient analgesia for working on sensitive teeth was obtained. The procedure was repeated in the following sessions till the work was completed.

After this success, we decided that such a procedure is the least time-consuming and the most practical one for achieving hypnotic analgesia for dental work. We explained to eight subjects that we would like them to relax, because a good relaxation of the body eliminates the post-operative effects of the injection they will receive. After the relaxation was obtained, we simulated an injection as in the preceding cases, and the necessary analgesia was easily attained.

The credit for this analgesia cannot be given to the "increased acceptance of suggestion" in the deliberately induced hypnotic state. The following experience proves that, when seeking the elimination of the subjective feeling of pain, an adequately presented suggestion may be just as effective without any deliberate induction of hypnosis. In 300 patients who were suffering intense pain, some of them with evident organic causes, such as acute pleurisy or peptic ulcer, Dr. Golden (52) employed a procedure that consisted in inserting a hypodermic needle attached to an empty syringe into the sore area, and whispering to the nurse, in a voice audible to the patient, that an extraordinarily powerful drug was being given, which would eliminate all pain in one or two minutes in 90% of the cases. As the doctor repeatedly asked the patients, watch in hand, how they were feeling, the patients generally responded after 30 seconds that they were better and, after two minutes, that the pain was gone. In 50% of the cases the analgesia lasted for 24 hours, and in some cases it even persisted for several weeks or months.

* * *

Suggestibility as such, both in the deliberately induced hypnotic state and in the interpersonal relationships in everyday life, is nothing else but a greater or lesser motivation to accept verbal or non-verbal stimuli (suggestions) in a somewhat personal manner. The acceptance of these stimuli or suggestions brings about a certain behavior of the person, which depends on the degree of motivation, the person's own concepts about this behavior, and his capacities for presenting it. The behavior in itself is merely a revelation and channelization of the psychophysiological capacities the person already has.

Evidently the psychophysiological capacities of an individual differ when he is in a hypnotic state or in his normal condition. What is more, these capacities vary considerably in the hypnotic state, according to the level of hypnotic depth, that is, of the intensity of the hypnotic emotional state, which is nothing else but the intensity of emotional states of the positive or negative type, in general. Suggestibility under hypnosis owes its specific tint only to the fact that it reveals psychophysiological capacities which are different from the ones that are usually found in daily life.

The creation of a psychophysiological situation that favors the presentation of a certain phenomenon of behavior, by means of rationalizations, comparisons, combinations of verbal and non-verbal stimuli, etc., that is, the adequate giving of suggestions so that they may be accepted is essentially the same in the hypnotic state or in the interpersonal relationships of daily life.

But, however well presented and rationalized a suggestion may be, it may happen, in either of the cases, that the suggestion is ignored by the subject or gives rise to a behavior that differs completely from, or even opposes, the operator's suggestion (53). This may be seen even in subjects with an extreme biotype, selected as "very suggestible."

As Marchesi says (54): "In deep hypnosis, the subject will accept *certain* suggestions only in the same way as in the waking suggestion and we do not know *which of them* he will accept or reject and no power in this world can force him to such acceptance *if* he really and deeply restrains them, as fully contrary to his personality . . . ."

Similar statements abound in the literature referring to clinical and experimental observations on responses to suggestions. Definitely they do not provide a ground for assuming that suggestibility is all there is to hypnosis.

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A SURVEY OF ATTITUDES TOWARD HYPNOTHERAPY WITH CHILDREN

by Virginia Traphagen, M.A., M.S.W.[1]

With delinquency and emotional disturbances in children at an all-time high, with the waiting lists for treatment at child guidance centers and children's mental hospitals necessitating a year's wait, with the case loads of school social workers and probation officers too heavy to give adequate aid, there is a demand either for shorter methods of treatment or for vastly larger public funds to meet the problem. Since monetary resources seem to be running short rather than increasing, the need for an immediate search for shorter methods is obvious. More than most people realize, hypnosis in one of its forms—positive suggestion, symptom removal, or hypnoanalysis—offers itself as a method for conserving time and money as well as for covering more ground in helping our children.

Prejudice toward the use of hypnosis in the treatment of *adults* has been considerably reduced because of its successful application with disturbed men during and after World War II. But prejudice toward its use with *children* still exists—or, rather, professional workers *believe* it exists—and as a consequence most of us are hesitant to recommend hypnosis as a therapeutic tool. In the United States so few cases of hypnotherapy with children have been reported that it is difficult to find literature to support the belief that hypnosis could be applied safely and effectively. As a public school psychologist and social worker, I have not been encouraged by my superiors to initiate a technique which is still thought of with suspicion and fear.

More out of curiosity than anything else I began asking the mothers and teachers of the problem children I was counseling what they thought of hypnotherapy as a possible way of adjusting their youngsters. When my idle questioning met with more positive response than negative, I decided to take a one-semester leave of absence at Smith College with W. S. Taylor, Ph.D., where I could study hypnosis as it might be used in the treatment of children. But first, in order to determine whether such a subject of study was timely and one whose fruits the public was ready to share, I conducted a survey of opinion among parents, teachers, social workers, psychologists, and administrators.

Questionnaires were deliberately not presented to those in the medical profession. Their prestige is high enough to permit them to employ whatever tool, be it medical or psychological, they consider appropriate. Of more concern to me was the reaction of the psychologists and social workers who are paid by public funds and whose functions are determined by a hierarchy of superiors. It was important, too, to understand the attitude of teachers and their superiors, for it is they who, in large part, refer the children to the therapist or his agency. And finally, the mothers? If their reactions were found to be those of fear or superstition, then it would be foolhardy to spend time studying a technique which I could never use.

The questionnaires were distributed principally by someone other than myself in order that my own influence might not be exercised, either positively or negatively. They were given to Parent-Teacher Association groups, mothers' clubs, and individuals from different social-class areas, the majority being middle class. Questionnaires were sent also to social agencies, to

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public and private school teachers, principals, supervisors, superintendents, and directors in Detroit and elsewhere. While no attempt was made to cover the entire country, there are many responses from New Jersey, Massachusetts, New York, and South Carolina, as well as from various parts of Michigan. Though the majority came from Detroit, there are enough from different sections of the country to warrant the conclusion that there are no geographical differences in attitudes toward hypnotherapy with children as far as the survey extended.

As shown in the questionnaires reproduced below, a brief explanation of the nature and purpose of hypnosis is given. While this may have a persuasive effect, it was nevertheless necessary as a guide for those who are completely ignorant of it. There were in fact two questionnaires, the more specific one being for parents. This may have been unnecessary, for when some parents were given the one for professionals, their reactions seemed to be the same as those given by parents who marked the other one.

THE FORM FOR PARENTS

A psychologist in Boston, who is an expert in hypnotherapy with adults, wants to know how the public feels about hypnotherapy with children.

Hypnotherapy is a method which uses hypnosis to find the cause of a person's problem and to help him to a better adjustment.

Dentists and doctors have been using hypnosis very successfully with children who are terrified of shots, anesthetics, or painful treatment. Some psychologists feel that certain kinds of behavior problems which children are troubled with might lend themselves to treatment through hypnosis. For instance, bed-wetting, inability to diet, refusal to eat, refusal to talk, inability to fall asleep or to get up in the morning, perhaps even stuttering.

Given a qualified therapist and a problem suited to this technique, would you be for it or against it? If against it, your comments will be welcomed. [My signature.]

THE FORM FOR PROFESSIONALS

A psychologist in Boston, who is an expert in hypnotherapy with adults, wants me to make a little survey for him of the public's attitude toward hypnotherapy with children.

This is a technique which uses hypnosis both to determine the cause and to make suggestions designed to help the person to a better adjustment. Not every problem lends itself to this kind of technique, but there are certain ones on which it would be appropriate to use it, thereby cutting the length of treatment and consequently making for economy in child guidance work.

Given a qualified therapist and a problem suited to this technique, would you be for or against its application with children?

If you are against it, your comments are welcome. [My signature.]

Criticism can be made of both questionnaires: that the explanations are too limited, thus giving a false or biased picture of hypnotherapy, or that no explanation whatsoever should have been made. Bear in mind, however, that the purpose of the questionnaire was to determine *current* attitudes towards the use of hypnosis with children, not to sell it nor explain it. On the other hand, some explanation was necessary in order to motivate an answer other than "I don't know what it is." As a matter of fact, so many people (particularly college graduates) refused, on the ground of ignorance, to give any answer whatsoever that it was impossible to take an accurate count of them. Consequently, only those who actually marked the questionnaire are included in the survey.

In totaling the results, there were so many conditional answers that in addition to the categories for "opposed" and "in favor" it was necessary to make a third category called "reservations." This included such statements as "after all else has been tried," "as a last resort," and "in only the most serious cases," which were the most common reservations. Three or four wrote, "in favor of medical profession only;" and "in favor of begin-

ning *experimentation* with hypnotherapy with children." They were included under "reservations" too even though they had checked "for."

TABLE OF ATTITUDES

	Number	Per cent In favor	Per cent Opposed	Per cent Reservations
Psychologists	30	67	17	17
Social Workers	47	43	21	36
Administrators	30	33	50	17
Teachers	50	70	18	12
Parents	100	65	15	20
Total.....	257	58	21	21

INTERPRETATIONS

While the numbers in this survey may not be large enough to constitute a true poll of opinion, they present a sampling from which certain trends can be deduced. Parents seem to be more open-minded, more free of prejudice, and more willing for hypnotherapy to be exercised with the problems of their children than many people believe. Teachers, too, indicated they have the same accepting attitude. Psychologists are more receptive than social workers, perhaps because of their basic studies in the processes of the mind. But the objections and doubts of administrators represent rather a formidable block, for they are the school principals, supervisors, superintendents, directors of agencies and graduate schools, who are either the referral agents or those who set up the policies under which techniques of therapy proceed. And they have every right to advance cautiously when recommending an innovation which will affect the children whose care they are pledged to support.

On the positive side there were some comments of particular interest. Several people said in effect, "I don't know why people should be afraid of hypnosis when they think nothing of that frightening technique called shock therapy." And still others said, "It must be less threatening or harmful as a way of helping people than tranquilizers and antibiotics with their dangerous side-effects." Many mothers and teachers with problem children exclaimed, "Anything that would help a problem child!"

Since, however, the voice of a prejudiced minority can be stronger than that of the majority, the nature of this voice should be understood and heeded. An inspection of the stated objections to hypnotherapy reveals two serious points: The first is lack of information on the scientific characteristics of hypnosis and how it is used as a therapeutic tool. Many of the old superstitions derived from tales, movies, and stage entertainments definitely color the present attitudes of educated as well as of uneducated people. Several parents in this group asked, "Would the child develop dependency on this type of treatment and on the therapist? And would it not weaken his will?" Several other parents gave a conditional answer: "I would agree if it could be proven that there is no danger of harmful after-effects." A social worker stated, "I would be concerned about the disorientation of the child." Many people expressed worry by the question, "How do you wake

him up?" Several teachers and school principals were of the belief that hypnotherapy would have no lasting effect and that it did not reveal cause and therefore could not treat cause. A supervisor of psychiatric case work was against it " . . . because I believe that the patient's conscious participation should be engaged, both in determining the causes and in enabling him to cope with his conflicts or situation." One child psychiatrist maintained, "The technique is too superficial and does not permit 'working through.' Also I would see it as very threatening to the patient." Another child psychiatrist[2] was in favor of extensive investigation, but stated, reasonably, "A major problem is the qualification of the therapist. It is far easier to hypnotize than it is to know what to do with the potent forces that are brought into play with hypnosis. Removal of symptoms through suggestion without ego strengthening and redistribution of psychic energy is harmful. Symptoms have a protective function."

The second outstanding point was suspicion in regard to the qualifications of the therapist. A number of people of all categories who declared themselves for hypnotherapy nevertheless underlined "qualified" therapist. Several principals and one psychologist who is the director of a school clinic believed it would be dangerous for anyone but a trained physician, preferably a psychiatrist, to practice hypnotherapy.[3] (The director agreed, however, that because of the long waiting lists experimentation should begin.) Another director of a large school clinic wrote, "Unless more general information about present research and practice is available I would say 'no'." Three superintendents felt the public was not ready for this method and that it would engender fear and suspicion if used by workers in community-fund or municipally supported agencies.

Implied fear and doubt are revealed in the many answers under the category of "reservations." The most frequent conditional acceptance was accompanied by such statements as: "as a last resort," "after all else has been tried," "only in the most severe cases," and "only if I am convinced that the therapist is qualified and the problem suited to the technique." Many who were against hypnotherapy reflected the same attitudes, but more negatively, declaring that they could never be sure the therapist was qualified or that the problem was suited to this technique. Some social workers were against it on the grounds that there are many other good and known techniques for helping children and that hypnosis was therefore unnecessary.

The most dramatically stated objection was from a male teacher, who wrote that he was strongly against hypnotherapy because "a child may become greatly frustrated once put in this condition. He may even perform ridiculous actions and carry out feats of skill and strength impossible to him under normal conditions. The child has not developed fully enough in either physical or mental make-up to encounter the pressures and strains placed upon him under this condition. This method may in certain cases bring about complete loss of memory. Under this condition the faculties of the conscious brain become dulled and lose connection with the body and with each other. I feel a child is not

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[2] The responses of these psychiatrists are not included in the computations of the survey but are mentioned only as examples of some of the negative attitudes toward hypnotherapy.

[3] Two simply specified a "medical therapist" and were included under "reservations," but those who were more emphatic with this specification were counted as "opposed."

able to retain himself in this condition. I can honestly say that it cannot be too strongly emphasized that the practice of hypnosis may produce the most serious mental disturbances!"

CONCLUSIONS

Such criticism and skepticism cannot be taken lightly. The concern over who is a qualified therapist is of particular importance. Indeed the public *should* be concerned, since there are few states with certification laws to designate the qualifications of therapists. As things stand now, any one can counsel, whether he has gone past the eighth grade or not. In the Detroit newspapers one sees daily this advertisement: "Hypnotist. Counseling on emotional problems, tensions, speech defects, allergies," with a telephone number but no name. I undertook to call him and found that he had no degrees and had taken no college courses in the psychodynamic field. But he was doing a booming business. Also in Detroit hypnosis is being taught by dentists and by an engineer in classes in which *any one* can enroll. Those commentators who felt "a qualified therapist" should be of the medical profession should go further and demand that the physician be trained in psychotherapy as well as in medicine and, if he is to use hypnosis, trained in the special knowledge and arts of that branch of therapy also.

The conclusions to be drawn from both the positive and negative answers in this survey are:

1. A two-fold, widespread educational program should be undertaken by the American Society of Clinical Hypnosis:

   (a) To inform the public through newspapers and popular magazines of the nature, purposes, scientific processes, and advantages (with case material) of hypnotherapy.

   (b) To inform the public that whenever a parent sends his child to a hypnotist for treatment he should expect proof that the therapist has degrees which guarantee his having undergone supervised training in psychotherapy, as well as special training in hypnotherapy.

2. That when laws are presented to legislatures for the certification of psychologists and social workers as therapists, those laws contain specifications that these therapists should have additional special training in hypnotherapy before being permitted to practice it; and further, that none but such specially trained therapists (including those of the medical profession) should practice hypnosis in any form.

3. That experimentation with hypnotherapy be initiated in public agencies with these limitations:

   (a) With written consent of the parents of the child.

   (b) With the recommendations for such therapy in each case having been made by a clinical staff of psychologists, social workers, and psychiatrists.

4. That trained hypnotherapists make it a point to publish full accounts of their work with children and to do so whenever possible in the journals of other disciplines in order to educate the workers in these disciplines in the possibilities of hypnotherapy with children.

BRIEF CLINICAL REPORTS

AN EARLY EXPERIENCE IN HYPNOANESTHESIA

by Robert L. Maresca, M.D.,[1] and Boyden L. Crouch, M.D.[1]

It is not unusual for the doctor with an interest in clinical hypnosis to express hesitancy in applying this interest to his practice. It is with this kind of practitioner in mind that the authors have decided to put one of their early experiences with hypnoanesthesia on record.

One of the authors (R.M.), an otolaryngologist, elected to have surgical removal of a ganglion on his left wrist under hypnoanesthesia. He had used hypnosis in his own practice for some time for esophagoscopies and for certain office procedures and was well acquainted with various hypnotic techniques. The patient was seen for hypnotic inductions on four occasions before the day of surgery by his colleague (B.C.), an anesthesiologist. These visits averaged about 45 minutes. The patient was admitted to the hospital through the emergency room at about four o'clock in the afternoon for surgery scheduled at five o'clock.

No pre-operative medication was given, and a hypnotic trance was induced with the patient on a hospital cart in the emergency room. The patient was moved from the emergency room through a hallway to await the elevator for the surgical floor. En route the patient was recognized by several of the hospital personnel, who called him by name and, despite the hypnotist's efforts, tried to engage the patient in conversation. The hypnotic state was essentially lost and was reinduced in the surgical suite.

Some of the operating room personnel had been briefed in hypnotic procedures. The patient was moved to the operating table, and the trance was deepened. In the pre-operative sessions, the patient had been unable to attain glove anesthesia, and it was decided that the trance technique should involve dissociation in both time and place. The patient was regressed to his residency training situation and was instructed to perform certain surgical procedures mentally. The tourniquet was inflated, and the incision was made without incident. The subcutaneous tissues were separated and the ganglion exposed.

At this point one of the operating room personnel dropped a wash basin. Almost simultaneously a disinterested surgical colleague, disregarding posted door signs, stopped in to ask what was going on. The trance was visibly lightened, but the patient offered no complaints. The hypnotist was thoroughly shaken and decided to inject a small amount of sodium pentothal to supplement the trance. However, the trance was not deepened, and the procedure was completed under pentothal analgesia.

The patient's description of the procedure follows:

> "Having had some experience in producing anesthesia and analgesia in other people by the use of hypnosis, I decided that when it came my turn to have an operation I would try hypnoanesthesia. Prior to the day of the operation, the hypnotist had produced several trances of varying depth, but had never attempted to verify the presence of any pain obtundation produced by his efforts. It was felt, however, that I was a 'good' subject; accordingly, we proceeded. The induction of the trance was begun in the admitting ward of the outpatient department, and I was able to go into a deep trance without difficulty. There was no apprehension either during the induction of the trance or during the trance.

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"It was necessary to go to the operating room four floors above in an elevator that is open for everyone's use. There came a gradual awareness of the noise of the voices, and I'm sure the trance lightened at this time. In the operating room proper I was aware of all of the activity associated with preparation for an operation. I am told that everything that could have happened unfortuitously did happen! I can truthfully say that I did not realize any of this, but the trance must have lightened still further, because I had to make an active effort to listen to the hypnotist and to avoid my own thoughts.

"The operation was the removal of a tumor attached to the left wrist joint, done under a tourniquet at 300 mm. Hg pressure. I never felt the tourniquet at all. The incision was pain-producing, I guess, but was not bothersome, since I was off in another operating room somewhere doing several different operations. The choice of one of these operations proved to be unfortunate. The dissection in the operation being performed on me was proceeding nicely, and so was the operation I was doing somewhere else, namely, a stapes mobilization. There is one part in the procedure where the operator (myself) does nothing. This is the point at which an audiogram is done by the nurse, and the surgeon merely sits. It was at this time that two things happened: first, the surgeon operating on me had to clamp and ligate the radial vein; second, the hypnotist informed me that I couldn't move any of my arms or legs. I felt the ligation but couldn't get out of the trance enough to tell the hypnotist that it would be all right in a minute, but I merely looked up and told him, 'Yes, I can move my arms and legs.' This led to the end of the hypnosis by a small charge of chemo-anesthesia.

"Comment as to our conclusions, based both on my impressions and those of the hypnotist, will be found in his part of the paper."

SUMMARY AND CONCLUSIONS

It was elected to perform a ganglionectomy under hypnoanesthesia. The pitfalls are obvious and point up the necessity of adequate understanding of the use of hypnosis for all operating room personnel. Perhaps the most significant point in this discussion is that the hypnotist's lack of experience allowed him to lose control of the situation. It is of interest to note that the subject has no unpleasant memories of the procedure.

HYPNOSIS IN OBSTETRICAL DELIVERY

by Donald Coulton, M.D.[1]

The use of hypnosis in obstetrics is a most gratifying and rewarding experience for both the patient and her physician. Since childbirth is the ultimate feminine accomplishment from an emotional point of view, it should and can be a maturing emotional experience of great psychological significance. In contrast to the thoroughly medicated and anesthetized patient, those who use hypnosis are consciously aware of all of the pleasant, fulfilling aspects of carrying, laboring, and delivering their children, each having an experience in accord with her own inner desires. This aspect of emotional satisfaction and fulfillment is contagious and greatly increases the obstetrician's sense of satisfaction in helping his patients reach their desired goals.

The following account describes an approach to obstetrical patients, emphasizing some aspects of their training and the variety of hypnotic phenomena which can be utilized. The subject of hypnosis is indirectly suggested to the patient early in the prenatal period by informative literature (1) in the waiting room and by a general information sheet given to all patients, which offers optional training in hypnosis at an additional fee. Later each patient is privately interviewed to gain an understanding of

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her apprehensions and desires concerning labor and delivery. The majority will desire medication only because of a dread and fear of unbearable pain. Once assured of being reasonably comfortable, most will have a curiosity and preference for remaining conscious and awake during delivery. At this point hypnosis is discussed directly. It is described to the patient as a technique she will be taught to practice at home and eventually use in any way that best suits her purposes, and that analgesics will be given whenever requested by her. This description is purposely devised to eliminate many of the misconceptions about hypnosis without lengthy discussion. If it is desired, she is then assigned to a training session at a later date.

One-hour training sessions are conducted in the last two months of pregnancy, and ordinarily three are adequate. Group training has the advantage of saving time for the obstetrician and seems to result in faster learning on the part of the patient. The first session is attended by patients not who have not experienced a trance before and is primarily concerned with teaching trance induction. Suggestions are given for autohypnosis to be practiced regularly at home. The majority of patients also have the opportunity to experience some degree of hypnoanesthesia, usually a glove anesthesia. Suggestions are given for entering the trance faster and going deeper the next time as well as for a deeper, better anesthesia.

In the second training session the glove anesthesia is repeated and followed by transferring this anesthesia to the lower half of the body or to the perineal area locally. The major part of the second trance session is devoted to describing the three significant experiental stages of labor, including the characteristic sensations to be anticipated with each stage. The patients are told to expect "a feeling of relief and joyful anticipation" upon entering the hospital, which will replace all nervousness and apprehension, and that they will almost spontaneously and automatically go into a progressively deeper trance as their labor progresses. During the first stage, while the "mouth of the womb" is gently being opened by the rhythmic contractions, there is no need for them to participate in any way. They are free to enjoy themselves in trance, such as visualizing themselves in some pleasant environment or recalling some pleasant experience. Since their state of relaxation is not only restful and comfortable but is also helpful in allowing the natural functions of their organs to proceed, this stage of labor will seem to pass very quickly and pleasantly.

The second stage will be apparent to them by a feeling of "restlessness" and a feeling of "needing to be doing something" actively to participate in their labor. These feelings correspond with a "full opening of the mouth of the womb" when the baby is ready to progress down the birth canal. Their need to participate actively will be best accomplished by deep breathing preliminary to each contraction, followed by holding their breath and bearing down steadily throughout the duration of the contraction, followed by a return to complete relaxation until the next contraction starts. In following this natural pattern they can be not only comfortable but pleased with knowing that they are actively helping in the birth process.

The third stage of labor is an extension of the second with one important addition: their sensations which previously have been all internal will now include external sensations in the perineal area. These external sensations can be a signal for the patient to participate more actively, to develop an increasing hypnoanesthesia of the area, and are to be associated with an

intense expectation of seeing and hearing her baby.

The tendency and desire of patients to come out of trance immediately after the birth of their baby is to be anticipated. This should be met by teaching the patient a "body" trance state or a post-hypnotic retention of perineal anesthesia, allowing her to enjoy her baby while placental delivery and perineal repair are completed.

The third session is devoted to a variety of hypnotic phenomena, any of which can be useful during labor or delivery, since individual capabilities are extremely variable. How these are employed may be best illustrated by individual case histories.

CASE 1

Mrs. R. H. was a 23 year old primapara with a frank breech presentation, who employed a combination of hypermnesia, hypnoanesthesia, and physical dissociation. During the first stage of her labor, she enjoyed recalling and partially reliving an afternoon picnic with her husband beside a small brook. The vividness of her trance experience was demonstrated when she went wading in the brook and remarked to the nurse, "the water is colder than I thought!" During the second stage of labor she developed a hypnoanesthesia of low spinal distribution; she did this unaided, as she had learned to do in autohypnosis. As the time of delivery approached, her interest and curiosity increased and she asked if she could "watch the delivery." Since she was a nurse and therefore familiar with the visual appearance of delivery and had experienced a physical dissociation in trance practice sessions, suggestions were given to her to "sit over on the radiator behind the operator where she could have a good view." Thereafter she "watched" with great interest during breech delivery with episiotomy and forceps to the after-coming head, her visualizations being based upon and aided by comments from the operator outlining the procedure as it progressed. This use of physical dissociation had not been anticipated by either the patient or myself, although the phenomenon itself had been experienced in the training sessions.

Some degree of spontaneous time distortion is commonly present for most patients in trance during labor, and this can be further enhanced by appropriate suggestions. Not only can the experiential total duration of labor be shortened, but the apparent time between contractions can be lengthened while the duration of each contraction seems fleetingly short.

CASE 2

Mrs. S. M. was also a nurse, age 25, having her second delivery. After developing a hypnoanesthesia, she began enjoying pleasant hypermnesias. Since she tended to interrupt her hypermnesia with each contraction, suggestions were given that the time between contractions would be progressively longer; furthermore that each contraction should be noticed as only a brief feeling of pressure. When she was moved to the delivery room with the head beginning to crown, she asked if I thought this was "false labor," because her contractions seemed to be "coming every 20 minutes and lasting only a second or two;" actually the contractions occurred every two to three minutes and lasted 45 seconds by the clock. The total duration of labor was one hour; later she hesitated to estimate the apparent duration of labor, but, when urged, guessed it had lasted 15 to 20 minutes. Interestingly, she had asked for and used a Trilene mask for about ten minutes in the early part of her labor; she later explained she had asked for it to test me, to see if I would meet her requests for medication if she felt it became necessary. Once assured on this point, she had no further need for medication.

Another useful technique is "partial body trances," or partial physical dissociation. It is easy for many patients, who have learned to enter trance, to come out of trance leaving a portion of the body "still in trance." Commonly it is suggested that the upper half of the body come out of trance, while the lower half remains in trance.

CASE 3

Mrs. C. C. was a 23 year old gravida II who had delivered her first baby successfully under hypnosis. She was an extremely talkative woman and expressed the desire to remain "awake," as the state of full relaxation became monotonous and boring to her. According to instructions, she entered a state of full relaxation early in labor, and then allowed only the upper

half of her body to come out of trance. This dichotomy was most satisfactory, allowing her to indulge in an almost constant stream of bright, cheerful conversation, while the lower half of her body remained limp, inert, and insensitive throughout delivery and perineorrhaphy. Although her relaxed and heavy legs had to be lifted into the stirrups for delivery, moments later she eagerly took her baby in her "wide awake" arms and proceeded to tell everyone of his unexcelled appearance!

Occasionally patients will employ their subconscious learnings on a totally subconscious level without conscious awareness of utilizing specific trance phenomena. This offers the interesting possibility of teaching patients various trance phenomena that could be utilized and then leaving them with the post-hypnotic suggestion that these new learnings will be employed in any way that is best suited to their needs.

Case 4

Mrs. M. G., age 26, delivered her third baby under hypnosis with great satisfaction, since she felt she had missed something by having anesthesia at the time of her first two deliveries. During her fourth pregnancy she stated she did not need any refresher training, as she "could manage this labor and delivery by herself." Her labor lasted five and one-half hours, ending with a normal delivery with episiotomy. At no time during her labor or delivery did she give any outward appearance of being in a trance but remained contented and completely comfortable throughout. Most of her labor she spent reading or in casual conversation, pausing only to bear down with her contractions in the latter part. The episiotomy was made and repaired without any suggestions being given, and the patient made no response to either. The day after delivery she was at a loss to explain why she had felt nothing uncomfortable, as she had not consciously employed trance or hypnoanesthesia as she had done during the previous delivery. Her only explanation was, "I knew you were sewing me up, but I just didn't pay any attention."

Prenatal training sessions in hypnosis are desirable and generally improve the results, but the first induction of hypnosis can be during labor with highly successful results in some cases. This seems to depend on two factors: the degree of the patient's motivation and the willingness of the operator to meet the patient's needs in accord with her own conceptions and understandings.

Case 5

Mrs. E. S., age 28, was a wild, uncooperative, and panicky patient who had been controlled with difficulty during her three previous labors. She knew that I sometimes employed hypnosis, and during her labor she belligerently informed me she would "never allow anyone to hypnotize her," as she feared being "unconscious from hypnosis as much as from anesthesia." Further conversation revealed that the source of her panic in labor was fear of the anesthesia for delivery. When "natural childbirth" was suggested, she countered by describing the method as "having the same pains, but trying to imagine you don't." Obviously there was neither the time or the willingness on the part of the patient to overcome her misconceptions, but we could agree that it would be highly desirable to avoid anesthesia and that anything which would shorten her labor would be acceptable. Without reference to any particular method, the advantages of relaxing her muscles were described as a means of speeding the passage of the baby while making her more comfortable by reducing pressure. This made sense to her, and she followed suggestions for progressive complete relaxation very adequately. She was then told that it was very important for her "not to lose consciousness by falling asleep or going into a trance," and in order to prevent this, she was to count continuously to herself, and that I would return periodically to make sure that she remained awake. She remained relaxed and comfortable throughout her labor and delivery. An episiotomy was repaired comfortably after she was told that the area would be insensitive due to the pressure of the baby's head on the perineum, and that it would remain so as long as she remained fully relaxed.

The following day the patient was enthusiastic with her easy delivery and especially in having avoided chemical anesthesia. For her hypnosis remained a frightening state of unconsciousness that she would never allow to happen to her, but this idea of being comfortable by relaxing was a wonderful revelation to her!

When employing hypnosis attention should also be given to the postpartum period. After the delivery and before the patient leaves the delivery room, suggestions are given for breast and perineal comfort, resumption of normal bowel habits, and ease of falling asleep when desired. Partial or complete amnesia for any unpleasant sensations experienced during delivery is indirectly suggested by making a direct suggestion that she will "clearly and vividly remember" all of the satisfying, pleasant events. And finally she is always thanked for her cooperation and sincerely praised for her accomplishment.

In summary, hypnosis has a wide range of usefulness in obstetrics. Since it requires the patient's interested participation and cooperation, it should be offered openly and frankly in most cases. Viewed as a learning experience which develops the patient's own capabilities, delivery under hypnosis becomes a gratifying, maturing, emotional experience with greater safety for both mother and baby. Since this is the goal sought, the additional use of analgesics should be included when requested as part of a completely successful accomplishment. And finally, delivery becomes a fascinating experience for the obstetrician who helps his patients in their utilization of trance phenomena in accord with their own individual capabilities and preferences.

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CONTROL OF GAGGING BY LIGHT HYPNOSIS

by Irwin M. Strosberg, D.D.S.[1]

One of the problems facing dentists today is finding a quick, effective method of treating chronic gaggers. There are many hypnotic methods of achieving this, the most effective of which is to determine by means of hypnoanalysis and age regression the psychic trauma which created the fixation that causes the patient to gag. Brill (1) states that if the patient in a state of hypnosis recalls hallucinatorily the act which has been suppressed in the past and is now allowed to bring the act to a satisfactory conclusion, the symptom is permanently removed. Although this method is the best, it is time-consuming.

A simpler, more direct way, described by Bernheim (2) in 1886, is by means of light hypnosis. As soon as it is evident that the patient is a gagger, the doctor says to him, "The cause of your gagging is your tongue. Now, if you do exactly as I ask you to do, I'll show you that it is not necessary to gag, and that it is even impossible to do so. When I attempted to put this film (tray, tongue depressor, mirror, or whatever was used) in your mouth you immediately thrust your tongue upward and forward almost out of your mouth." The patient is then given a hand mirror and asked to watch what he does. "Now watch what happens when I start to put the film in your mouth." As the second attempt is made to insert the film the patient will again start to raise his tongue, beginning to gag. Now the doctor says to the patient, "Watch your tongue. Attempt to swallow it. Draw it far back, low in your throat. Do you see how much more room there is in your

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mouth for this film?" And it is obvious that there is much more room in the mouth when the tongue is low in the throat, almost swallowed. "This simple trick of knowing how to hold your tongue is the secret of preventing your gagging." The doctor then proceeds with his work constantly reminding the patient to keep his tongue low in his throat.

This procedure serves two purposes: it gives the dentist much more operating room, and it prevents gagging. In some cases it would be equally effective to have the patient hold a ruler, tap his foot, pinch his ear, or perform any action that would lock his mind around the idea that whatever he was doing would prevent his gagging.

Actually what has happened is that the patient has been put in a state of light hypnosis as differentiated from post-hypnotic suggestion or waking suggestion. In waking suggestion (or suggestion in the waking state) no hypnotic condition is present. An example is: "Have a cigarette." The patient may accept or reject the suggestion. Light hypnosis, on the other hand, occurs when a hypnotic condition or phenomenon is present without the patient's entrance into somnambulism. In this particular case the patient is susceptible to catalepsy in a seemingly waking condition. He suspends the muscular contractions in his throat which cause him to gag. Therefore, he is in hypnotic trance although not in somnambulism. The patient's focus of attention has been set aside and replaced by that suggested by the doctor. He has been led into a situation where he gives his attention as the doctor directs. He is induced to accept the idea that holding the tongue low in the throat will prevent his gagging and then behaves in accord with that understanding.

Other possible methods of treating gagging are to put the patient into a state of somnambulism and give suggestions, operating while he is in this state, or to give post-hypnotic suggestions concerning gagging which would be effective after the patient is brought out of somnambulism. The writer has found that these methods, although they may be very effective in some cases, are more time-consuming and less successful than the use of light hypnosis described above.

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SOME NOTES ON CONTROLLING THE EXAGGERATED GAG REFLEX

by Irving I. Secter, D.D.S.[1]

Control or elimination of the exaggerated gag reflex may be approached from three different levels of suggestive therapy:

1. Authoritative waking suggestion.
2. Symptom removal by hypnotherapeutic suggestion.
3. Treatment of cause by brief hypnoanalysis.

Some patients will respond to only one of these approaches. Others will fail to respond to one approach, but will respond to the others. There are those who will react favorably to all of them, while still others will resist therapy at any level. These approach-

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es will be successful with those patients whose gagging symptom is based on an established habit pattern remaining after the original need for the symptom has disappeared. If there is any other basis for the symptom, the patient will probably resist treatment.

THE AUTHORITATIVE WAKING APPROACH

This approach may be used when the purpose is to control the exaggerated gagging reflex for brief periods of time, ranging from five to ten minutes. In many instances, however, by continued practice of the procedure described below, the patient may gain permanent control over his exaggerated gag reflex. The control afforded in this technique may facilitate, or make possible, throat examinations, the taking of dental impressions, registrations for denture prostheses, intraoral radiography, local anesthesia, and many other treatments. The antigagging verbalization used in this technique is effective in only about 50 per cent of the cases unless it is preceded by instruction in breath control and the offering to the patient of a rationale for the procedure. The adding of the breathing instructions and the rationale that it is impossible to gag while holding one's breath raises the success of the treatment to over 90 per cent.

VERBALIZATION (AT WAKING LEVEL)

It is known that under certain conditions a person does not gag. In fact, under these certain conditions it is impossible for one to make himself gag. I am now going to show you a method for controlling your gagging. In order that this method may be successful, you will have to prove to yourself and to me that you can hold your breath and find it impossible to gag all the time that you are holding your breath. The first step is to be able to recognize when you are no longer holding your breath. Now take a deep breath and hold it. Make your abdominal muscles as tight as you can. Feel the tensions in your chest. The moment you begin to feel the least bit of easing in your chest or abdominal muscles, you are leaking breath. Let us measure the amount of time you can hold your breath. As soon as you have taken a deep breath and can feel the tightness in your chest and abdomen, stretch out your arm. Then, as soon as your chest or abdomen begins to ease up, drop your arm. I will time you. (The doctor measures the time the arm was outstretched.)

That's fine. Your arm was up for 15 seconds [or whatever the time may be]. Now, if what I said before is true, you should be able to keep from gagging for at least 15 seconds. Take a deep breath, and hold your chest and abdomen tight while I test it with this tongue blade. [The doctor tests the gag reflex while instructing the patient to "hold in the abdomen—tight—tight—tight!" It may take two or three trials before the patient learns that he does not gag until his breath starts to leak.] Are you convinced now that there are certain conditions under which gagging is not only unnecessary, but also impossible? [Before the next step is taken, the patient must be thoroughly convinced and satisfied as to the impossibility of gagging under certain conditions.]

[If the patient is taller than the doctor, he is now seated as the doctor stands facing him. If the patient is the same height or shorter, both stand. The doctor places his hands on the patient's shoulders and stares at the base of the patient's nose, or at a spot between the eyebrows. The following instructions are then given:]

You are now ready to lose your exaggerated gagging reflex. Follow my instructions exactly, and look straight into my eyes without wavering. If you take your eyes away from mine, we shall have to start over from the beginning. [The patient fixes his eyes on the doctor's eyes.] Take a deep breath, and hold it until I count to five. Very deep. Hold it. Abdomen tight—hold it! One—hold it! Two—tight! Three — hold it! Four — hold it! Five! Now, let it out and relax your abdomen. Your gag is gone! To make sure, we shall do it once more. That's part of the system. Keep looking at my eyes. Take a deep breath, and hold it until I count to five. Abdomen tight! One! Two! Three! Four! Five! Let it go. The harder you try to gag, the more difficult it becomes. Try to gag, and take pleasure in failing. [The patient finds that he cannot gag.]

In this technique, the doctor must speak authoritatively and convincingly. Any doubt within himself may be sensed by the patient. A patient should not be expected to accept that about which the doctor himself seems uncertain. The doctor is advised to look at the base of patient's nose, or at a spot between the eyebrows, as some doctors have been known to go into an hypnotic trance while looking into the patient's eyes in carrying out this technique. After the medical or dental treatment has been accomplished, the instruction may be given that in the future, if gagging threatens, one needs only to hold his breath as long as possible, let it go, then take another deep breath, and so on, continuing in this way indefinitely until the emergency is over.

Gagging denture wearers who have been instructed in this technique may then be taken to a mirror and advised as follows:

Look into the mirror. There is your patient. You are his doctor. Practice this method I have shown you three times every day until the gagging is completely under control. You will soon find that the need to practice will gradually disappear.

SYMPTOM REMOVAL BY HYPNOTHERAPEUTIC SUGGESTION

Hypnosis as deep as the patient is willing to develop is obtained. The deeper stages are to be preferred, but a medium stage is adequate. When hypnosis has been achieved, the procedure may follow either of two directions:

1. *Prestige Suggestion.* The patient is told that gagging results from tensions, and that now, because he is relaxed and so comfortable, he no longer needs to gag; that he may try to gag, but the more he tries, the more difficult it becomes. Or he may be simply instructed to stop the unnecessary part of the gagging.

2. *Transfer of Anesthesia.* A more positive and a more successful technique employs the transfer of anesthesia. The patient is taught to develop hypnoanesthesia and to transfer it from one part of the body to another. He is then instructed to anesthetize those tissues which, when stimulated formerly, provoked gagging. He is then informed that, because of the anesthesia, he cannot gag. The suggestions are made that he has now learned to control his gagging and that to be able to gag is normal, but that he will henceforth no longer gag unnecessarily.

Whenever a symptom has been removed by suggestion, the possibility should be considered that, because of habit, the patient may feel a need to manifest the symptom at some future time. Under these circumstances, the patient will usually accept the suggestion that when such an event occurs, it might be preferable to manifest some other symptom instead. Such a symptom could be the transitory anesthetizing of one of the toes. In this way, the patient may improve his situation by trading his annoying symptom for something innocuous.

The two preceding techniques may give symptomatic relief. They are based on authoritarian procedures. These are usually not as satisfactory as an uncovering technique in which the approach is wholly permissive and aimed at determining causal mechanisms.

TREATMENT OF CAUSE BY BRIEF HYPNOANALYSIS

Age regressions should be avoided by those untrained in the handling of repressed materials or by those who would be unable to cope with manifestations of strong emotion. Stimulating recall or revivifying the past, while keeping the patient in contact with the therapist and the present, is within the scope of the abilities and education of most physicians and dentists. Furthermore, there is an advantage in

that the lighter stages of hypnosis are often adequate for this procedure. The deepest hypnosis of which the patient is capable is achieved. He is then asked to relax with his hands on his thighs. He is told that he is going to be asked questions to which he does not know the answers on a conscious level. His subconscious mind, however, will know the answers and will be able to respond. The method of response is as follows:

When the answer to a question is "Yes," the right index finger will rise. When the answer is "No," the left index finger will rise. "I don't know" will be indicated by a raising or lifting of the right thumb. Answers in any other category will be indicated by a raising of the left thumb. The patient is advised to make no conscious responses and to make no effort to move his fingers or thumbs — that these movements should come about by a process of subconscious lifting or levitation.[2]

The manner in which the patient makes these finger responses must be carefully observed. A rapid voluntary movement is frequently indicative of a conscious level response. A slower, quivering hypnotic response is more likely to be a subconscious response.

The first question: "Is the original cause of your exaggerated gagging something that you are willing to discuss with me here and at this time?" Only a "Yes" or a "No" answer is acceptable. Other answers are probably conscious answers.

If the answer is "No," the next question is: "Is the cause of your gagging something you are willing to *think* about, without telling me about it or discussing it with me?" If the answer is "No," we drop the matter, or refer it to a psychiatrist. If the answer is "Yes," we may proceed as follows:

Q: "Is what we are after something that happened before you were ten years old?"
A: "Yes."
Q: "Did it happen before you were five?"
A: "No."
Q: "Did it happen before you were seven?"
A: "No."
Q: "Did it happen before you were eight?"
A: "Yes."
Q: "Did it happen when you were seven?"
A: "Yes."

The suggestion is then made to relax completely. The patient is told that very soon there will flash across his mind a picture which can tell him what started his gagging. When the insight has come, he is asked if he cares to tell us about it. We do not insist that he do so. No matter what he decides, we point out that there was something which happened to a seven-year-old child that started the trouble. We accept the fact that, at that time, there was good reason to gag. It is further pointed out that as time went by, the exaggerated gagging became an unnecessary habit. The question is then raised as to when he wants to stop gagging. He is encouraged with the assurance that he can discard the exaggerated aspects of his gag reflex at any time, starting now. When this is accepted by the patient, he is cured.

Before the patient is dismissed, however, the possibility of symptom substitution is discussed, as with the patient whose symptoms are attacked directly. This is done in the manner described earlier.

A variation in the above technique is as follows: The age of the patient at the time of onset of symptoms is determined by the finger-response technique above. The date is calculated. It is then suggested that the

[2] This technique is no more than a simple adaptation of hand levitation and is comparable to an unconscious nodding or shaking of the head.

patient visualize a large screen as in a motion picture theater. He is then to see himself on the screen in a current situation. He is to observe on the screen a numbering mechanism (like a speedometer in an automobile). In the device are the numbers 1959, which represent the current year. The numbers in the device start to change, going backward to 1958, 1957, etc. As the numbers change, the picture changes, but the patient is to visualize himself in every scene. Soon the numbers stop at the year of symptom onset. Then he can see the situation which we desire to recall.

The methods described above have been tested clinically on more than 60 subjects. Success has been achieved in 90 per cent of the cases. Although it has not been possible to follow up all cases, more than 15 subjects have reported, from seven months to two years after treatment, that they are free of gagging. Many initially gag-stimulating factors were mentioned. These included painful dentistry, tonsillectomies, careless throat examinations, bad-tasting medicines, etc.

The preceding has been an example of uncovering techniques. Investigation of the mechanisms associated with other symptoms may be pursued in the same manner. Too much emphasis cannot be placed on the importance of permissiveness in the approach. If the symptom is one on which the patient relies for his adjustments to reality, or one associated with knowledge he cannot face at a conscious level, he should not be coerced into cooperation. Such coercion may lead to emotional behavior or other embarrassments. On the other hand, he should be encouraged by every possible means to discard his symptom voluntarily. One should always respect the patient's needs.

HYPNOSIS AN ADJUNCT TO TREATMENT OF BURNS

by A. J. Pellicane, M.D.[1]

The treatment of burns has undergone radical changes during the past few decades. The general care of burns is divided into three phases: (1) burn shock, (2) post-burn phase, (3) control of sepsis.

The shock treatment is directed toward maintaining the blood volume, preventing any undue increase in the size of the vascular bed, and minimizing leaking from the vascular bed. Restitution of the blood volume is the most effective of present methods for the therapy of shock. Plasma most nearly resembles the fluid lost in burns, and it might seem to be the almost ideal substance for replacement therapy. However, it has been demonstrated repeatedly that there is a simultaneous massive destruction of red blood cells, and experience has shown that whole blood therapy is better most of the time. Plasma substitutes and aqueous intravenous solutions are also used for fluid and electrolyte balance. General supportive measures include the alleviation of pain with adequate doses of morphine. Prevention of tetanus and gas gangrene is accomplished by giving proper antisera or tetanus toxoid booster.

The post-burn phase begins when the initial shock is over. It lasts until the patient is healed. This is the period characterized by pain and debilitation. It is the period when life fluids are oozing out of the patient. This period is also characterized by internal chem-

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ical shifts and metabolic derangements. Therapeutic efforts are directed towards replacement and correction of fluid balance and electrolytes. Plasma sodium, potassium, calcium, chlorides, carbon dioxide and nonprotein nitrogen determinations are made two or three times weekly in order that appropriate therapy may be instituted.

Diet is important for maintaining nutrition. After the first day or two, patients should be encouraged to take a regular diet, if there is no nausea or vomiting. Feeding tubes are of value in some patients who have good intestinal peristalsis but are weak, listless, drowsy, and have anorexia. Feeding should be arranged so that it has a high protein and caloric content combined with adequate minerals and vitamins. It should be homogenized sufficiently so that it will not clog the tube and will not in itself be productive of nausea, vomiting, or diarrhea.

In addition to the above the morale of the patient is important. Avoidance of pain and a pleasant, confident attitude on the part of all who care for the patient are strong factors in building morale. A severely burned patient needs and must have a great deal of encouragement. Control of sepsis is important not only for the patient's life but also for the success of grafting procedures in massive burns. Chemotherapy and antibiotics are relied upon to destroy any organisms that have entered the tissues or the blood stream. Local cleanliness and antiseptics are the best measure used to keep down growth on the surface of the wound which feeds bacteria into the tissues and into the blood streams.

Finally skin grafting is applied to large deep burned areas to hasten the recovery and rehabilitation of the patient. The surgeon must assume responsibility for the treatment. He should utilize every means possible for an early recovery. Few people seem to recognize the tremendous amount of work necessary in the treatment of a severely burned patient. Therefore, any method which seems to hasten the recovery and appears to be of value to the patient should be used. It was with this thought in mind that hypnosis was instituted on this patient.

Case Report

A 36-year-old colored female was admitted to St. Peter's General Hospital on April 19, 1958, with 55 to 60% of her body burned as a result of fire in her home.

Burns varied from first degree to third degree. Face had first and second degree burns on left side. Right arm showed 9% first to third degree burns. Entire left arm and volar aspect of entire forearm, including the elbow, had third degree burns. The sternum and mammary region showed second and third degree burns. The entire abdomen had second and third degree burns. Left gluteal region had second and third degree burns. Anterior surfaces of both thighs and upper half of right leg showed second and third degree burns.

The past history was essentially negative except for a right radical mastectomy in 1950 for adenocarcinoma of breast.

Treatment at time of admission was whole blood transfusions, adequate fluid and electrolytes, sedation, antibiotics, vitamins, and compression dressings. Later on high protein, high caloric diet. Necrotic tissue debrided in bed followed by Furacin dressings.

On May 16, 1958, her general condition improved. Taken to operating room for surgical debridement and multiple skin grafting procedure to left arm, elbow, and forearm. The temperature has shown daily spiking fever. Further demarcating necrosis became evident. Treatment was blood transfusions and frequent dressings to keep infection down. Cultures were staphylococcus aureus, which showed sensitivity to neomycin only.

May 16, 1958, grafted area dressing was changed and showed 75% take and minimal seropurulent exudate. However, temperature continued to spike.

On May 23, 1958, grafted regions of left arm area became more infected, and considerable exudate was present with more loss of grafts.

On June 5, 1958, blood cultures were negative. Urine culture showed proteus vulgaris.

On June 10, 1958, continued low grade

spiking fever. Due to illness of attending physician and change of services and internes, patient's course went rapidly downhill. Infection of burned areas occurred with great outpouring of serous exudate. The hemoglobin dropped. Her appetite was poor. Her course in the hospital had been progressively downhill. On admission she weighed 180 lbs., but now weighed 94 lbs., a loss of 86 lbs. in three months. There was marked loss of muscle mass and extreme weakness. She refused to move any part of her body or to get out of bed. As a result decubital ulcers over sacrum developed. In addition severe contractures of the neck, arms, forearms, hands, fingers, body, thighs, legs, ankles, and feet occurred. Attempts by the nurses to move and care for the patient in bed produced most excruciating pain and caused the patient to scream violently. She was incontinent. She soiled and contaminated the dressings.

On August 1, 1958, after my return, a decision was made to use hypnosis to help this patient. At first she was difficult to manage, but with frequent hypnotic sessions she became more cooperative. She was taken to the operating room and under general anesthesia a thorough debridement and cleansing of all infected areas were performed. Cultures now showed staphylococcus aureus and aerobacterium aerogenes. Sensitive to mandilamine only.

During the hypnotic sessions, suggestions were given that this patient would be able to get up from bed and walk around without any discomfort. Suggestions were also given that she would be able to exercise the outstretched fingers, hands, forearms, and arms to overcome the "fixed" contractures which had resulted from immobilization of the extremities after skin grafts. She was given suggestions to hasten the healing of all burned areas. The patient was also given suggestions that she would have perfect control over her incontinence. She was instructed that she would be able to get up and go to the bathroom to take care of her bodily functions. The incontinence was one of the most annoying and messy chores the nurses had to contend with in this patient.

By August 4, 1958, the patient was able to get out of bed and walk. She went to the bathroom whenever necessary, eliminating the tedious bedside care she required. Her appetite returned. In fact she requested and enjoyed more food. Her strength improved and she became more cheerful. She commenced to gain weight. Tub baths were used to eliminate the grossly infected crusty areas and to prepare her for skin grafting. By August 14 the patient was capable of 90% flexion of elbows and 70% return to wrist, finger, leg, and ankle functions. All areas were cleaner, and many grafts appeared viable. She had been afebrile for the past two weeks for first time since admission and appeared to be making good progress.

November 24, 1958, culture shows staphylococcus aureus and proteus vulgaris. Right thigh is 90% healed. Left side will require further grafting. Left buttock has considerable exudate.

December 2, 1958, split thickness postage stamps to left thigh, abdomen, and anterior chest. Donor site was right and left legs. On December 15, 1958, grafts showed a necrosis. On December 26, 1958, patient was taken to surgery for thorough cleansing and debridement of all wounds.

January 9, 1959, the usual sequelae of infection destroyed many grafts in spite of frequent changing of dressing. She was started on a Stryker frame for 8 weeks duration.

On March 1, 1959, organisms were sensitive to several blood spectrum antibiotics. Placed on panalba. Protein = 8.5, Alb. = 3.3, Glob. = 5.2, Nonprotein Nitrogen = 24 mgs., Cl = 500 mgs., Na = 147 mgs.

March 17, 1959, pinch grafts to left gluteal area showed no take of any grafts. However, the decubital ulcer over sacrum was closing as result of getting patient out of bed.

On April 6, 1959, she was started on Decatron for one month. However, the same old sequence occurred, with grafts taking for three or four weeks, then undergoing necrosis and infection. Dressings were changed daily.

On May 4, 1959, cultures revealed presence of alpha hemolytic streptococcus and bacillus pyocyaneus, which were sensitive to mandelamine. Altho all wounds still showed infection, the wounds were healing to some extent.

On May 5, 1959, another split thickness skin graft was performed on the anterior thigh. Subsequent dressings showed the same result. At this time patient had about 20% of body to be covered. Blood transfusions were given periodically, especially before surgery.

All in all, she has had 30 whole blood transfusions and 12 surgical operations. Hypnotic sessions averaged two to three weekly.

Summary:

General measures and, in particular, frequent whole blood transfusions (30 pints) were given. Twelve skin grafts were performed to date. Frequent changes of dressings, with cleanliness of the wounds and antibiotics have accomplished a Herculean task in this patient. However, hypnosis proved a valuable adjunct in therapy.

CONCLUSIONS

Hypnosis in this patient achieved the following results:

1. Increased her appetite, so much so that she has gained from a low of 94 lbs. to present weight of 130 lbs., a gain of 36 lbs. since hypnosis was used.
2. Eliminated the soiling and bowel evacuations in bed, which added insult to the burn injury.
3. Overcame the position contractures by exercising the extremities.
4. Helped her to get out of bed after a long siege of complete bed rest.
5. Diminished some of the pains in various sections of her body through her learning to relax various groups of muscles.

Hypnosis did not influence:

1. Rate of healing of burns, which is dependent on patient's ability to epithelize the raw surfaces.
2. Skin graft "takes" were not influenced by hypnosis. In fact, many of the grafts automatically sloughed or became infected after an apparent successful take of about three or four weeks as a result of the patient's debility and poor resistance to infection.

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BREAST DEVELOPMENT POSSIBLY INFLUENCED BY HYPNOSIS: TWO INSTANCES AND THE PSYCHOTHERAPEUTIC RESULTS

by Milton H. Erickson, M.D.[1]

Common experience has demonstrated repeatedly that unconscious attitudes toward the body can constitute potent factors in many relationships. Learning processes, physical and physiological functioning, recovery from illness, are, among others, examples of areas in which unrecognized body attitudes may be of vital significance to the individual. Hence, the question is pertinent: To what extent can specific forms of somatic behavior be influenced purposefully by unconscious forces, and what instances are there of such effects? The two following cases, aside from their hypnotic psychotherapeutic significances, are presented as indicative of a possibly significant problem for future research concerning unconscious purposeful influence upon breast development.

Case 1

A twenty-year-old girl was brought by her older sister for a single hypnotherapeutic interview because of failure of breast development, despite good nipple development. The girl was found to be seriously maladjusted emotionally, had failed some of her college courses, and was afraid to seek employment. She was, and since childhood had been, deeply religious, but her religious understandings and convictions included an undue element of austerity and rejection of the physical body. Additionally, it was learned that she was engaged to be married to a 47-year-old alcoholic welfare recipient, because, as she resentfully declared, with no breasts she was not entitled to more.

She readily developed a medium-to-deep trance, and manifested a markedly passive attitude. The suggestion was offered to her that she read carefully and assiduously the Song of Solomon, and that she recognize thoroughly that it glorified the Church, and before the time of the Church, it glorified the human body, particularly the female body in all its parts. She was admonished that such should be her attitude toward her body, and that perhaps an attitude of patient expectancy toward her breasts might aid in some further development. It was further explained to her that as she obeyed instructions she was to feel with very great intensity the goodness of her body, particularly the goodness of her breasts and to sense them as living structures of promise, and in which she would have an increasing sense of comfort and pride. These suggestions variously phrased were repetitiously presented to her until it was felt that she had accepted them completely.

The outcome almost two years later of this one hypnotherapeutic session may be summarized as follows:

1. The breaking of the engagement to the alcoholic.
2. Weekly reading of the Song of Solomon.
3. Return to college and successful completion of the courses previously failed.
4. Enlargement of social and recreational life.
5. Successful employment.
6. Recent engagement to a young man of her own age group whom she had known for several years.
7. Independent reports from her and her sister that breast development had occurred to the extent of "one inch thick on one side, about one and one-half inches on the other side."

COMMENT

That significant therapy was accomplished for this patient can not be doubted. That her breasts actually enlarged is not a similar certainty, since an objective confirmatory report was not obtainable. But there is a definite possibility that physical processes, comparable in nature and extent to those which occur in "psychosomatic illness," may have resulted in what might, as a parallelism, be termed "psychosomatic health."

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Case 2

A seventeen-year-old girl was first seen in her home because of her seriously pathological withdrawal responses to the failure of her breasts to develop, despite the adequacy and maturity of her physical development otherwise. She had a history of extensive medical treatment, extending over five years, with much experimental endocrinological therapy. The only results had been an increasing failure of emotional adjustment, and the possibility of a mental hospital was under consideration.

She was found hiding behind the davenport, and, upon her being discovered there, she rushed behind the piano. When she learned that "no more medicines or needles" would be employed, superficially good rapport was established, possibly because she regarded the situation as offering a better means of escape or withdrawal. She was found to be a good hypnotic subject, developing a light-to-medium trance readily.

The first interview, after several hours' effort in winning her cooperation, was spent primarily in appraising her personality assets, both in and out of the trance state. During the interview she was found to have a Puckish sense of humor, with dramatic overtones, and this was utilized as the opening gambit for the therapeutic approach. This was initiated by reminding her of the old song about how the toe-bone is connected to the foot-bone, etc. When her interest had been fully aroused, a paraphrase was offered in relationship to the endocrine system, and it was pointed out that, even as the foot-bone is connected to the ankle-bone, so is the "adrenal bone" connected with the "thyroid bone," with each "supporting and helping" the other.

Next she was given suggestions to feel hot, to feel cold, to have her face feel uncomfortably hot, to feel tired, and to feel rested and comfortable. She responded readily and well to these suggestions, whereupon it was suggested effectively that she develop an intolerable itch upon her feet. This itch she was then to consign with dramatic intensity, not to the nethermost depths, but to the "barren nothingness" of her breasts, a fitting destination for so intolerable an itch. However, in further punishment of it, the itch would become a constantly present, neither pleasant nor unpleasant, noticeable but undefined feeling, rendering her continuously aware of the breast area of her body. This involved series of suggestions was formulated for the multiple purposes of meeting her ambivalences, puzzling and intriguing her, stimulating her sense of humor, meeting her need for self-aggression and self-derogation, and yet doing all this without adding to her distress and in such fashion and so indirectly that there was little for her to do but to accept and to respond to the suggestions.

Then the suggestion was offered that, at each therapeutic interview, she was to visualize herself mentally in the most embarrassing situation that she could possibly imagine. This situation, not necessarily to remain constant in character, would always involve her breasts, and she would feel and sense the embarrassment with great intensity, at first in her face, and then, with a feeling of relief, she would feel that weight of embarrassment move slowly downward and come to rest in her breasts. She was given the additional post-hypnotic suggestion that, whenever she was alone, she would regularly take the opportunity to think of her therapeutic sessions, and she would then develop immediately intense feelings of embarrassment, all of which would promptly "settle" in her breasts in a most bewildering but entirely pleasing way.

The rationale of these suggestions is rather simple and direct. It is merely an effort to parallel in relationship to her breasts, but in a pleasant, constructive manner, such unfortunate destructive psychosomatic reactions as "terrible, painful knots in my stomach over just the slightest worries."

The final set of hypnotic instructions was that she was to have a thoroughly good time in college. (By these suggestions, all discussion of her withdrawn behavior and college attendance was effectively bypassed.) It was explained that she could, in addition to handling her academic work adequately, entertain herself and mystify her college mates delightfully by the judicious wearing of tight sweaters and the use of different sets of "falsies" of varying sizes, sometimes not in matched pairs. She was also instructed to carry assorted sizes in her handbag in case she decided to make an unexpected change in her appearance, or, should any of her escorts become too venturesome, so that she could offer them a choice with which to play. Thus her Puckish activities would not lead to difficulties.

She was first seen in mid-August and given weekly appointments thereafter. The first few of these were kept by her in person and they were used to reiterate and reinforce the instructions previously

given her and to insure her adequate understanding and co-operation.

Henceforth she kept, by permission, three out of four appointments "in absentia." That is, she would seclude herself for at least an hour, develop, in response to post-hypnotic suggestions, a medium-to-deep trance state, and in this state, as far as could be learned, she would review systematically and extensively all previous instructions and discussions and whatever "other things" that might come to her mind. No effort was made to determine the nature of those "other things," nor did she seem to be willing to volunteer information, except to the effect that she had thought of a number of other topics. The other appointments she kept in person, sometimes asking for information, sometimes for trance induction, almost always for instructions to "keep going." Occasionally she would describe with much merriment the consternation she had caused some of her friends.

She entered college in September, adjusted well, received freshman honors, and became prominent in extra-curricular activities. During the last two months of her therapy, she kept her visits at the level of social office calls. In May, however, she came in wearing a sweater and stated with extreme embarrassment, "I'm not wearing falsies. I've grown my own. They are large medium size. Now, tell them to stop growing. I'm completely satisfied."

Her college career was successful and subsequent events are entirely satisfactory. At the writer's request, she underwent a complete physical examination, with special reference to her breasts, a report of which was sent this writer. She was physically normal in every regard.

COMMENT

Whether or not the hypnotherapy had anything to do with her breast development is not known. Quite possibly the development may have been merely the result of a delayed growth process. It may have been the result of all the medication she had received. Or it may have been a combined result of these, favorably influenced by her altered emotional state. But at all events, the psychotherapeutic results that derived from getting her to enter college and to enjoy life, instead of a continuing of her previous pattern of psychopathological withdrawal, cannot be denied.

However, in all fairness, it must be recognized that there is a significant possibility that the therapy she received, through the mobilization of unconscious forces by hypnosis, may have contributed greatly to her breast development.

SPECIAL BOOK REVIEW: REITER'S "ANTISOCIAL OR CRIMINAL ACTS AND HYPNOSIS"

by André M. Weitzenhoffer, Ph.D.[1]

EDITOR'S NOTE: *This review is intended to be a thorough appraisal of Doctor Reiter's book as a carefully documented study reaching a certain conclusion. It is not a final pronouncement by the reviewer upon the question involved. In the further development of an understanding of the problem, as presented by Doctor Reiter, it is hoped to have the same reviewer present an appraisal of other documentary material of another kind but equally or even possibly more informative. This will be a task of considerable labor and significance and will require much time and effort. Hence the reader is asked not to expect it necessarily in the next issues of The Journal.*

Reiter, P. J. *Antisocial or Criminal Acts and Hypnosis. A Case Study.* Springfield, Illinois: Charles C. Thomas, 1958. Pp. 217. $11.25.

The topic of the commission of antisocial acts in which hypnosis is instrumental is not a new one. One of the earliest books dealing extensively with this question was that of Liégeois published in 1884. At least 50 monographs and longer works and, as a rough estimate, 400 articles or more have appeared which deal entirely or in great measure with this and related matters. In spite of this voluminous literature, the various questions which have been raised under the heading of antisocial acts in hypnosis perennially come up and continue to be a source of some controversy. Besides a host of subsidiary problems, there are at least two major aspects to the matter of hypnosis and antisocial behavior: (1) Is or can a hypnotized individual be made defenseless against antisocial acts committed upon his person? In other words, can hypnosis be instrumental in victimizing a person? (2) Can a hypnotized person be induced to commit criminal or antisocial acts which he otherwise (i.e., were he not hypnotized) would not carry out?

As has often been pointed out by writers on this subject, including the present reviewer, it is quite unlikely that any laboratory situation can ever settle in an incontrovertible manner the questions which have just been raised as well as others which relate to them. In order to be fully satisfactory, any test of these questions must involve a situation in which without equivocation a serious criminal act would actually be perpetrated. Thus by its very nature the experiment, if it leads to positive results, places the experimenter in jeopardy, not to mention the ethical problem *per se* which is presented for him. It is perhaps possible for the investigator to protect himself against criminal prosecution by refusing to divulge details of the alleged crime, as was done recently by a well-known American psychologist working with hypnosis. Unfortunately, by so doing the experimenter withheld important data without which his entire report became equivocal. Furthermore, by stepping beyond the bounds of professional propriety, whatever his convictions or motivation may have been, this investigator has placed himself in the unenviable position that any contributions of his, including this one, become suspect material, particularly if controversial. It is certain that his efforts have not brought the problem any closer to a solution.

Thus it would seem that there exists an insurmountable natural stumbling block with regard to any laboratory approach to the problem of antisocial acts committed with the help of hypnosis. In the final analysis it may be that the only proper tests must be sought out in the field, in a natural setting. Certainly, as Dr. Reiter points out, to date the most convincing data come from reports on real crimes in which it has been shown that in all probability hypnosis must have been instrumental, at least in part. His report on the most recent of such instances adds to the evidence that hypnosis can be instrumental in the commission of crimes and to our understanding of the *modus operandi* of crimes under hypnosis.

A major contribution of Dr. Reiter is his detailed analysis of the antecedents leading up to the crimes, and his very close and careful examination of the manner in which hypnosis was utilized for the instigation of a number of criminal acts. The work offers an unusual opportunity to look step by step, so to speak, into the mind of an individual being gradually changed into a criminally insane person by means of

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hypnotic techniques. One looks into his mind during this change, at the conclusion of the change, and subsequently. From this account one gets a rather instructive picture of some of the conditions under which hypnosis can be instrumental in the production of antisocial acts as well as some indications as to how much of a matter for concern this possibility ought to be. This last aspect is not one to pass over lightly, for in these days of increasing use of and popular interest in hypnotism, any possibility of making criminal use of hypnosis becomes a matter of some social significance. Finally, the detailed description of the author's methods for dealing with this case represents an important methodological contribution in the domain of hypnotism.

In brief, Dr. Reiter's book is about H, who was tried in 1954 by the Copenhagen Central Criminal Court for several armed bank robberies and a double manslaughter. In the course of the investigation which preceded the trial, evidence was uncovered that these crimes had in reality been planned and instigated by another person, N, who by means of hypnotic techniques had induced H to carry them out. An excellent summary of the entire case as seen by Erik Bech, barrister for the Danish Crown, serves as an introduction to the book.

This summary is followed by a critical review of the opinions, theories, and experiments of a number of well-known authorities who have concerned themselves with the topic of antisocial acts in relation to hypnosis. Of greater interest and value, perhaps, are the excellent summaries to be found in the next chapter of a number of remarkable modern criminal cases involving hypnosis which, to date, have remained relatively or totally unknown to English speaking readers. In all of these cases there is strong to practically undeniable evidence that hypnosis was instrumental in the production of the crimes.

The bulk of the present book is concerned with a detailed study of H as a person before he came under the influence of the hypnotist, after this happened, and then on through the crimes and trials. H's upbringing, his home, parents, brother, schooling, etc., are all examined in an effort to determine what factors may have been involved in his downfall. Considerable effort is made to elucidate whether or not H was subjected to hypnosis, since to this day N, the criminal hypnotist, has not confessed his part nor even admitted that he had ever hypnotized H. In spite of this, it is worth noting that in the end the evidence was so overwhelming that N alone was convicted and sentenced, a decision upheld as final in 1957 by the Danish Court of Appeal.

One aspect which makes the case of particular interest, especially in Dr. Reiter's eyes, is the apparent initial normality of H. Prior to encountering N he appears to have been a young man of average intelligence, of good background, in good physical health, with no history of mental illness, and showing no predisposition to mental aberrations nor any criminal tendencies. Yet a few years later the psychiatric examination following his apprehension bears the diagnosis of "paraphrenic schizophrenia developed on the basis of a pronounced schizoid, somewhat hysteriform, and suggestible psychopathy." It is further and subsequently confirmed that H was insane at the time the crimes were committed. The psychiatric report bears, however, further material of great significance, for in it *"Stress was laid upon the fact that the clinical picture of the mental disturbance was extraordinary, differing essentially from the clinical picture usually observed."* And as the case developed it became increasingly evident, through Dr. Reiter's masterful handling of the situation, that indeed the psychosis had initially been induced through extremely clever and insidious hypnotic and psychological manipulations of H over a period of nearly a year and a half by the criminal psychopath known as N. The latter's aim seems to have been simply to create a delusional system which would allow him to circumvent H's superego and to control his behavior, while at the same time remaining protected from any difficulties in which H might get into as a result of N's influence. While it does not appear that N deliberately aimed at creating a true psychosis, in Dr. Reiter's opinion N's tampering with H's psyche, his subsequent abuses of the latter, and the final outcome of all this for H gradually led to the development of a true, psychogenic, and most likely irreversible psychosis. To be noted, however, is the fact that the synthetic psychosis which N brought into being was of a totally different character from the final psychosis developed by H subsequently to his arrest.

Here the author seems to fail to notice a rather important implication. For his report is certainly good evidence in support of the contention, sometimes questioned, that serious harm can be done to an individual's psyche through abusive use of

hypnosis. Perhaps this failure on the part of Dr. Reiter really reflects his recognition that the conditions here were rather exceptional, and that the final transformation of H from an individual with an artificial psychosis into a true psychotic may have been as much the result of his tribulations following his arrest and the impossibility of subsequently receiving adequate psychotherapy as the result of his earlier experiences with hypnosis. In spite of such considerations it does seem likely that N's hypnotic manipulations of H may have prepared the ground for his eventual true psychotic break.

Dr. Reiter makes a considerable point of the fact that, in his opinion, H was essentially a normal, fairly well adjusted individual prior to his coming under the influence of N. This is a rather crucial point. The trouble with the word "normal" is that it can hide a multitude of sins. An individual can be normal and yet lie sufficiently far from the norm that it is only by the good grace of the rather arbitrary choice of a cutting point that he happens to be seen as normal rather than as a deviant. One can seriously question whether such a marginal case can really be spoken of as normal in a strict sense. H may have been able to operate in an acceptable, adequate manner in his society, yet it must be noted that Dr. Reiter reports that before coming under N's influence he was "a somewhat peculiar personality, pronouncedly schizoid, introvert, and with somewhat ambivalent attitudes toward his parents, ambitious, narcissistic-aggressive." Furthermore we know that he was a bitter, disillusioned individual at the time he met N. Finally, one must wonder somewhat with regard to the adequacy of his functioning in the Danish society when one considers that he had become a Nazi collaborator during the Second World War. Assuredly one cannot assert that any individual with such personality characteristics is a certain candidate for a psychosis or is necessarily hypersuggestible, but it seems to this reviewer that one has here possibly fertile ground for the development of psychotic behavior under the rather unusual aspects of the case and perhaps for the development of inordinate suggestibility. In any event, it is difficult for this reviewer to see how Dr. Reiter can so strongly insist on the essential normality of H. But then it is true that the author also asserts that the victim of the unscrupulous hypnotist in the famous Heidelberg case reported by Ludwig Mayer was initially normal. Again this was not this reviewer's impression when reading Dr. Mayer's report, and here too the picture seemed much more that of a marginally normal individual at best. Certainly in the Sala case, reviewed by the author, there can be little question with regard to the deviant character of the individuals involved. Details with regard to the personality of the victim in the Case of Z also reviewed by Dr. Reiter are somewhat lacking, but even here one finds features which place some doubts upon the degree of well-adjustment of Z. Some of the earlier cases, like those of Gabrielle Bompard and the Czynski affair, to mention only two, leave little doubt with regard to the pathologic character of the victims. All of this seems to add up to a point very much ignored by Dr. Reiter, that where authenticated crimes have been committed through the instrumentality of hypnosis, one finds the victims of the hypnotist to be "normal" in a sense but nonetheless to be suffering from various degrees of maladjustment, to say the least.

Other salient features to be found in these various cases are a large number of inductions of hypnosis, a high and close degree of interaction between hypnotist and subject, a long training period, so to speak, over which hypnotic ascendance is gradually developed, and during which the hypnotist very carefully and painstakingly creates the necessary conditions for the carrying out of the crime. Another aspect which may be significant is the fact that in most of these instances, the hypnotist is perceived, at the beginning at least, and without benefit of hypnosis, as a close friend, a teacher, a lover, a healer (physician), etc., and more generally as someone to look up to as well as a source of help. The case of H is perhaps one of the most extreme in regard to some of these characteristics. For a period of nearly 18 months he was practically in constant contact (24 hours a day) with N. It was during that period that the latter gradually established his hypnotic control over H. During this time as well as subsequently he gradually isolated H from his peers in a way reminiscent of isolation techniques used in connection with brain-washing. N became more and more his exclusive friend, confidant, mentor, and a means through which H could attain his own end. Of considerable interest is the fact that N apparently never dehypnotized H from the moment he hypnotized him for the first time with the result, one may surmise, that H remained more or less in a perpetual trance during the period of his training. No laboratory experiment has ever come

near duplicating such situations, a fact which alone might well account for many of the reported negative or equivocal results. In any event, these are all very exceptional circumstances which surely reduce fears of widespread dangers of criminal hypnosis. This seems to be a sufficiently important implication of the available data to have warranted some recognition of it on the part of the author, who remains strangely silent on this score.

Perhaps because of the emphasis placed on H's criminal behavior one is prone to overlook the fact that not only does the present work offer evidence in support of the thesis that hypnosis can be used to cause a person to commit crimes, but just as importantly it also furnishes ample evidence that hypnosis can also be employed as a way of rendering an individual defenseless against criminal acts of all sorts. Athough the possibility of the one does not necessarily follow from the existence of the other, H happens to be an individual in whose case both kinds of criminal use of hypnosis occurred, and there exists a long list of abuses of H other than inducing him to act criminally: the complete alienation of H from his family and friends, getting H to surrender various personal possessions and the greater part of his earnings to N, forcing him into matrimony and on one occasion inducing him to compel his fiancée to have sexual relations with N. At a later date he was compelled to watch passively while N attempted unsuccessfully to force himself upon his wife. By means of his hypnotic influence, N was also partly successful in inducing H to join him in various debaucheries.

How N was able to control H so completely forms the subject matter of a good portion of the book. According to Dr. Reiter's analysis, this seems to have involved three things. There was the creation of a delusional and hallucinatory system aimed at circumventing H's superego. At the same time an attempt was made to weaken and dissolve this superego in order to supplant it with an artificial superego being simultaneously synthetized by N. It is impossible to get a full understanding of the manner in which N accomplished his objective without reading the book. One might, however, briefly describe H's delusion, since it plays a central part in his criminal activities. Under the influence of N, he came to believe that he was a reincarnated spirit who, in order to attain an ultimate state of being known as Samadhi in yoga literature, had to accomplish a certain mission on earth. This would be his only chance to reach Samadhi, and failure to do so would be equivalent to eternal damnation. His mission was an exalted one, since he was to be the savior of mankind. His mission involved the eventual creation of an ideal community, a small-scale Utopia, in Scandinavia. Before this could be accomplished, however, a secret organization had to be formed whose purpose would be to save the intelligentsia of Denmark in the event of a Russian invasion. It is at this point that the bank robberies were planned and carried out as a way of financing this project. Although the two murders committed in the last robbery were not premeditated, it was in the nature of H's delusion that such killings were perceived as fully justified by the end to be attained. As a matter of fact, since he was a spiritual being using a human body only as an earthly vehicle, H was above and beyond human mores and laws, and killing a human being was to him as killing a mosquito would be to the average man. H was not entirely alone in his venture, but had a guardian spirit, X, who had initially divulged to him his mission, and who thereafter ordered and guided his every move. Sometimes X would materialize in the person of N, sometimes would communicate with H through N acting as a medium, and frequently would speak directly to H. Not only was X a guide upon whom H came to rely heavily, but to disobey was inconceivable, since this would immediately be followed by X abandoning H, who then would have very little chance to attain Samadhi.

Just what actually took place within H remains somewhat unclear in spite of Dr. Reiter's efforts to elucidate this matter. The incorporation of the delusional system, especially when later compounded with the superego, was tantamount to the creation of an artificial psychosis. But whether or not the artificial system ever became an integral part of H's over-all personality remains much in question. In some part of the work one gets the impression that H's personality as a whole was temporarily altered, whereas in other parts one gets just as definite an impression that what really happened was that, through hypnosis, a secondary psychotic personality coexisting with H's normal personality was artificially created and was ascendant whenever H carried out N's instructions. This ascendant position became eventually a quasi-permanent condition. A similar kind of ambiguity is again found in connection with the matter of the superego. In parts of the work it is implied that H's

original superego was dissolved and supplanted by the artificial one created by N. Yet in other portions of the text it seems pretty clear that the old superego could not possibly have been dissolved. Perhaps we are dealing here with a problem in communication arising out of the fact that the present book is a translation. Be it as it may, the case of H as described by Dr. Reiter succeeds rather well in giving a picture of the crimes being committed by an artificially induced secondary psychotic personality, and the eventual schizophrenic break from which H was suffering at the time the book was written would appear to result partly and perhaps largely from the conflicts which arose between the two personalities, probably compounded with a very real weakening of both H's ego and superego by N's manipulations. This particular interpretation, that a secondary personality was created and responsible for H's crime, duplicates the situation which is reported to have existed in the case of Z as reviewed by Dr. Reiter. On the basis of his recollection of the Heidelberg case this reviewer feels that it would not be difficult to apply such an interpretation to that case too. As a matter of fact, it is in keeping with the classical and never convincingly disproved theory that hypnosis is some sort of dissociated state. Such an interpretation is a rather novel way of looking upon the production of antisocial acts in hypnosis. It is unfortunate that Dr. Reiter was unable to push the study sufficiently far to ascertain more fully whether it was H's personality as a whole which was warped, or only some segment of it was given autonomy and a psychotic structure.

Although this reviewer may have appeared at times to be rather critical of the present work, it must be emphasized that there is no question in his mind that this is a notable contribution to the literature on hypnosis. It represents one of the most important modern books in this field and will long stand as a landmark. The overall quality of the book is excellent and, considering the huge mass of material which we know was available and the problems which must have arisen in the course of organizing it into a smaller coherent whole, one could hardly ask for more. Whatever deficiencies the work may have, they do not detract from its intrinsic value. And the fact that the reviewer may disagree with Dr. Reiter on some points does not necessarily invalidate the latter's statements, but merely calls attention to the fact that, perhaps with a somewhat different frame of reference, there are other inferences to be made.

Clinicians reading the book will probably wish that more clinical material had been made available. There are many reasons why this was not possible and it can not be held against the author. Many experimentalists trained in the rigorous methodology of controlled investigations and statistical designs will probably be unhappy with the nature of the data under consideration. Those among them who are cognizant of the many pitfalls of hypnosis will surely worry about such things as confabulation, role-playing, etc. Some may even raise the question whether, indeed, the whole plot was not the fabrication of a diseased mind so convincingly presented as to mislead even Dr. Reiter. Against this one must point out that he is a highly respected psychiatrist and investigator with a lifetime of experience in psychiatry as well as with hypnosis. He is himself fully aware of all the pitfalls he might encounter in dealing with the case of H and, as a matter of fact, he has shown much insight and ingenuity in handling the case to circumvent them. None of the above objections will actually be new to him, as he faced them when voiced by the counsel for the defense of N. His rebuttal is in the book, and it must be agreed that for the most part he has adequately defended himself. This reviewer would question only two aspects of his rebuttal. Dr. Reiter contends that an individual in a somnambulistic state will not tell a lie so long as the facts are accessible to him. This seems to be a rather gratuitous and perhaps dangerous assumption which is more lore than demonstrated fact. There is furthermore the implication here that when the facts are not available the subject may then lie. This we know does happen, and of course the presence of hypnosis by no means guarantees that all facts become accessible to the subject. Dr. Reiter feels rather satisfied that he has protected himself adequately against lying or any other forms of falsification of information by what is admittedly a very ingenious hypnotic device. Just as in the case of lie-detection, in which the author also seems to place great reliance, one may well ask how effective is a protective device such as Dr. Reiter used when the subject really and firmly believes that what he is saying is the truth, regardless of whether or not it is? Still, in all fairness to the author it must be recognized that his case rests upon evidence from many sources and that the safeguards he has introduced should have min-

imized greatly the possibilities of falsification. Even if there were unrecognized confabulations as well as other distortions of the truth by the hypnotized H, there remains sufficient acceptable evidence to support Dr. Reiter's thesis that hypnosis was instrumental in the criminal career of H. In the final analysis, probably only a confession on the part of N given under such conditions that one would be fairly certain it was true can conclusively answer objections and criticisms which have been and may still be raised. Had the case of H been the only one available, one might be justified in taking at least an attitude of friendly skepticism. In the light of other previously reported cases such as the Heidelberg and Sala affairs and the case of Z, it seems that any further denial of the possibility of crimes under hypnosis becomes an extremely weak position to take. Nor can one any longer pass the matter off lightly, as has frequently been done, by saying that it is just a matter of persuasion similar to that we see in action every day. One can perhaps argue that N persuaded H to commit the crimes, but there is little of the normal every-day character in this "persuasion." Dr. Reiter's work makes this clear.

This book ought to have a wide appeal. It is to be feared, however, that the rather high price placed upon the book by its publisher will be a serious and unfortunate deterrent to its widespread acquisition. Yet, this reviewer does not hesitate to state that it should be read and studied by every serious student of hypnotism.

BOOK REVIEWS

Jerome M. Schneck, Editor. *Hypnosis in Modern Medicine.* Second edition. Springfield, Ill.: Thomas, 1959. Pp. 389. $8.75.

(The following review is reprinted from the Journal of the American Medical Association for September 5, 1959, with the permission of that Journal. A footnote to the review section of the Journal states, "These book reviews have been prepared by competent authorities but do not represent the opinions of any medical or other organization unless specifically so stated.")

The statement on the dust jacket of this edition reads, "Completely revised and set from new type." Except for the quality of the paper, a page-by-page comparison of the two editions discloses them to be identical, even with regard to the typographical errors (pages 30, 213, and 216). There has been no revision, and a revision was needed. For example, 9 of the 11 chapter bibliographies are alphabetically arranged for the reader's benefit. Two are in scrambled order and these two, as well as several others, have numerous items of questionable value or pertinence. Grantly Dick-Read's name is abused in the text, in two bibliographies, and even in the index, as is that of Anthony Owen-Flood. In the bibliography for his own chapter, the editor evidently considered 16 of his papers "in press" and two "to be published" sufficiently important references to be listed in the first edition, but not of sufficient importance to warrant giving the actual references as to date and place of publication in the second edition six years later. Actually, one of these references, 101, was published the year before the first edition, but it is still listed as "in press" in this second edition.

In his preface to the second edition, the editor declares, "it seems wise in this second edition to retain the original form and content and to supplement the basic structure of the book with the latest significant data. To achieve this aim, a review of the literature has been organized and appended. Emphasis has been placed upon clinical advances. The basic chapters on history and instruction have not, therefore, been enlarged." One wonders whether this last is meant to imply that the other chapters were enlarged. Examination of this new appended review of the literature in the book discloses approximately 40 full pages of text divided among 11 sections, covering such topics as internal medicine, psychiatry, psychophysiology, and theory. In these few pages, "to supplement the basic structure of the book with the latest significant data," what purports to be a general discussion and summary of publications for the period 1953-1959 is offered. However, of the total bibliography of 151 items listed for this new part (psychological abstracts lists between 350 and 400 references for the same period of time), 30 are the editor's own writings, 24 antedate the first edition of the book, only 9 are as recent as 1957, only 26 as recent as 1956, and there are none for 1958. In brief, the book is not a revised edition, nor does it contain, as the editor asserts, the "latest significant data."

Whatever merit this second edition has derives, then, almost entirely from that of the first edition. As for the book itself, it is a symposium of uneven quality, with 11 contributors. There is considerable unnecessary overlapping which the editor could have corrected. Six of the chapters are of excellent quality, five are no more than fair. Considering the latter first, these are the chapters on hypnosis in internal medicine, in surgery, in anesthesiology, in obstetrics and gynecology, and in child psychiatry. The chapter on internal medicine is an interesting but discursive account of a little of everything from urology to psychiatry and is marred by an effort at poetic prose. The 87-item bibliography includes a simple listing of general textbooks on psychiatry, psychoanalysis, neurology, and orthopedic surgery.

Hypnosis in Surgery might better have been entitled "psychiatric problems sometimes encountered in relation to surgery." As an article on the latter subject it is reasonably good, but little information about hypnosis in surgery is given. The 41-item bibliography has too many general references. Also, those references listed as "in press" in 1953 have not been corrected by the editor of the "new edition." The 12-page chapter on anesthesiology is decidedly poor, uninformative, and expresses too many dogmatic opinions; the nine-item bibliography is without value, and the author's name is listed both correctly and incorrectly in the indexes of both editions.

The chapter on obstetrics and gynecology demonstrates that the author writes well, is widely read, but is content in this instance to give his readers only a general account, richly interlarded with references to associated and even remotely related matters. The nonalphabetical 82-item bibliography contains many irrelevant listings.

Of definitely poor quality is the chapter on hypnosis in child psychiatry. It is essentially an inadequate account of such practice before 1900, with some scattered brief current material. The 28-item bibliography is also lacking in value.

Unlike the chapters just mentioned, the initial chapter of the book, History of Medical Hypnosis, is a pleasure to read and delightfully informative. An excellent 42-item bibliography is given. Hypnosis in Dermatology is a thought-provoking, stimulating, informative chapter of significant value to any reader, whatever his field of competence, because of the explication of hypnosis as a methodology. The 59-item bibliography is also excellent.

The editor's chapter on Hypnosis in Psychiatry is also of excellent quality: comprehensive, informative, and well organized, it is only slightly marred by his ready emphasis on his own writing, at the expense of more extensive studies in the literature which he merely cites as references. His bibliography of 152 items is, on the whole, good despite the fact that of the 41 references to his own work, 18 of these are listed in both editions as not yet published.

The chapter on Hypnosis in Dentistry is delightfully comprehensive and thoroughly informative. It bespeaks a background of extensive understanding and experience over a long period of time and the material is presented simply and directly. Unfortunately, the 28-item bibliography is too general to be of much value. Physiologic Aspects of Hypnosis is an outstanding contribution, thoroughly well organized and presented, constituting a competent survey of the literature, with a well-selected 119-item bibliography.

The final chapter, Instruction in Hypnosis, presents adequately and informatively the understandings one needs in teaching hypnosis, the problems to be encountered, and the special understandings that must be given to the role that patients as individuals must necessarily play in the use of hypnosis. Briefly then, this is a book dating back to 1953, not a new 1959 edition as claimed, and over half of it is good, in fact, very good.

G. B. Haugen, H. H. Dixon, and H. A. Dickel. *A therapy for anxiety tension reactions.* New York: Macmillan, 1958. Pp. x + 110. $3.50.

By Bernard E. Gorton, M.D.

It seems to be inevitable in the history of science that periodically old ideas are rediscovered and presented as something new. In this present volume the authors outline their method of treatment for anxiety and tension reactions by means of teaching the patient a method of relaxation which is essentially that described a number of years ago by Doctor Jacobson of the University of Chicago. The authors believe that the primary cause of anxiety and tension reaction is muscular tension. They reject as speculative psychodynamic and psychoanalytic formulations concerning the cause of neuroses. Accordingly, their therapeutic approach is directed almost exclusively at teaching the patient to overcome his tension by means of a series of exercises.

It is not clear whether this book was written for the layman or the professional reader, but it cannot be recommended in either event. The total neglect of personality factors with the exclusive emphasis on muscular tension as the basis of neuroses is naive and inadequate, to say the least. What the authors have to present was long ago described by such workers as Jacobson and Schultz, and particularly the latter's autogenic training is a far more comprehensive and inclusive method of therapy of the type described by the authors of this book. It is significant that this volume contains neither an index nor a bibliography; had the authors bothered to familiarize themselves with the relevant literature, it seems likely that the present volume would never have been written.

Horvai, I. *Hypnosa v lekarstvi.* [Hypnosis in Medicine.] Praha: Statni zdravotnicke nakladatelstvi, 1959. Pp. 319.

By J. Hoskovec, prom. psych., Praha, Czechoslovakia.

This monograph is intended to be of use to physicians working in all branches of applied medicine in which hypnosis might prove to be a practical therapeutic tool, as well as for physiologists investigating the problems of higher nervous activity in man where hypnosis may become a valuable instrument.

The book is divided into two parts: the first is devoted to general problems, the second to questions of practical application of hypnosis. The former contains chapters on history of hypnosis, theory of hypnosis, mechanism of induction of hypnosis and phenomenology of hypnosis. In the part devoted to practical applications, hypnosis is discussed as a method of psychotherapy, as an anesthetic, an instrument for active exercise, a valuable tool in sleep therapeutics and differential diagnosis. Its applica-

tions in various branches of medicine, especially psychiatry, neurology, internal medicine, dermatology, surgery, stomatology, obstetrics, and gynecology, are described in detail, and even some nonmedical uses are mentioned.

Hypnosis and suggestion are dealt with from the point of view of the theory of I. P. Pavlov. The author conceives of Pavlov's theory as a theoretical framework describing the physiological basis of hypnosis. He underlines the need for further detailed investigation of many actual problems in hypnosis. In explaining the nature of hypnotic phenomena, the author totally rejects the psychoanalytic point of view.

The difference between sleep and hypnosis is held by the author, in accordance with Pavlov's opinion, to consist of varying degrees of extension and intensity of cerebral inhibition. The presence of various phase states, particularly the paradoxical phase, is regarded as a characteristic phenomenon of hypnosis. The problem of the intensity of inhibitory processes ("hypnotic phases") still remains open. Dissociation of brain functions in the sense of a subdivision of the cerebral hemispheres into "sleeping and waking parts," as well as the existence of "guardian points" which represent the physiological foundation of hypnotic rapport, are held to be characteristic for hypnosis.

In the author's opinion, it may be presumed that the inhibition during hypnosis in man is concentrated especially in the cortex, the highest cerebral structures. Animal hypnosis is a state of variously intensive and extensive inhibition arising predominantly in subcortical structures through the mechanism of unconditioned reflexes. Human hypnosis, in a narrow sense of the word, takes its origin predominantly in the mechanism of conditioned reflexes; but not every human hypnosis must be called forth by direct or indirect suggestion. Hypnotic states may also originate under the influence of non-verbal stimuli, for example when under the influence of non-verbal stimuli the subject remains unaware of the fact that somebody is trying to hypnotize him.

When numerous disturbing factors are excluded, hypnosis produces a certain inhibition of vegetative functions. Spontaneous decrease of motor activity also occurs. "Contradictory results obtained by other workers might have been caused by errors in experimental method and short-term observations without any control series or exact indication of the depth of hypnosis."

Hypnosis as a state of inhibition of certain parts of the cerebral cortex and some subcortical regions leads to such changes in the organism as may favorably act upon some disorders in man. The influence of the spoken word is of the highest importance in hypnotic therapeutics. Hypnosis enhances suggestibility and thus makes possible a differentiated and therapeutically effective verbal intervention which is met with only very rarely in the waking state. Hypnosis should be regarded as a method which opens the possibility of better utilizing other therapeutic measures.

Suggestion is, in substance, "an ability to stimulate temporary connections (conditioned reflexes, associations, etc.) by means of one's own or another person's word. These connections then become starting points of further activity of the individual in question." Description of phenomena which usually take place during the process of normal falling asleep forms the contents of suggestions in induction of hypnotic state.

The book is based upon a sound knowledge of extensive literature (more than 800 items), the author's rich clinical experiences with hypnosis, and on some of his own preliminary experiments.

N. S. Kline. *Psycho-pharmacology Frontiers.* (Proceedings of the Psycho-Pharmacology Symposium of the Second International Congress of Psychiatry). Boston and Toronto: Little, Brown, and Co., 1959. Pp. xiii + 533. $10.00.

By Bernard E. Gorton, M.D.

In recent years much impetus has been given to the study of human behavior by the discoveries and advances in such diverse fields as neurophysiology, electronic computers, cybernetics, and most recently in the field of psycho-pharmacology. The advent of the tranquilizing drugs, and more recently the energizing drugs, has revolutionized treatment in the field of psychiatry. In this present volume are reported the proceedings of the Psycho-Pharmacology Symposium of the Second International Congress of Psychiatry, in which nearly one hundred of the world's leading workers in the field of psychopharmocology participated. This book is unusually interesting in that, in addition to the formal papers, there are transcripts of discussions by the participants.

Progress in this new field is so rapid that this volume is already a little outdated in that since this publication there have been

further advances, particularly in the field of the psychic energizers (drugs used in the treatment of depression). Nevertheless, the serious student of hypnosis would do well to scan this volume. One of these days the biochemists and psycho-pharmacologists may be able to throw light on the phenomena we currently descriptively abstract as "hypnosis." This volume is recommended as a highly readable though somewhat specialized introduction to this field.

Gosaku Naruse, B.G.S. [*Techniques of Hypno-Interview.*] Tokyo: Seishen, 1959. Pp. 10 + 216.

Instead of a review, since this book is published in Japanese by a Japanese psychologist, one of our corresponding editors, its table of contents will be presented. In this way our Occidental readers may have the opportunity of judging the range of interest and breadth of study of hypnosis in Japan.

I. Development of Hypno-Interview
   - History of Clinical Hypnosis

II. What Is Hypnosis?
   1. Hypnosis and Suggestibility
   2. Suggestion and Resistance
   3. Hypnotic Trance
   4. Depth of Hypnosis

III. Techniques of Hypnotic Induction
   1. Preparation for Induction
   2. Induction of Hypnosis
      - Postural sway, eye closure, hand levitation, Chevreul pendulum, color contrast, image induction, metronome method
   3. Deepening of Trance
      - Deepening of trance, enhancement of suggestibility, fractionation, confusion, rehearsing, multiple dissociation, post-hypnotic technique
   4. Dehypnotization and Post-Hypnotic Suggestion
   5. Knacks of Induction

IV. Specific Techniques of Hypnosis Induction
   1. Group Hypnosis
   2. Auto-Hypnosis
      - General technique, Weitzenhoffer's technique, Schulz's technique, Das Autogene Training, etc.
   3. Drug Hypnosis

V. Techniques of Hypno-Interview
   1. General Technique of Hypno-Interview
      - On the hypno-interview, depth of hypnosis and hypno-interview, general procedure of hypno-interview
   2. Symptom Removal
   3. Free Association
   4. Automatic Writing
   5. Hypnotic Drawing
   6. Image Induction
      - Hypnotic dream, movie image, crystal gazing, image association, self image
   7. Hypnotic Regression
   8. Experimental Neurosis
   9. Intensification of Emotion
   10. Time Distortion
   11. Hypnotic Play
   12. Hypnodrama

VI. Projective Hypno-Diagnosis
   1. Hypnosis and Projective Technique
   2. Word Association Test
   3. Rorschach Test
   4. T.A.T.

VII. Hypnosis and Medicine
   1. Medical Use of Hypnosis
   2. Hypnosis in Psychiatry
   3. Hypnosis in Obstetrics
   4. Hypnosis in Gynecology
   5. Hypnodontics
   6. Hypnosis in Child Psychiatry

VIII. Theoretical Consideration of Hypno-Interview
   1. Process of Hypno-Interview
   2. Transference in Hypno-Interview
   3. Resistance of Hypno-Interview
   4. Interpretation in Hypno-Interview
   5. Dissociation in Hypno-Interview

IX. Misconceptions and Misuse of Hypnosis
   1. General Misconceptions of Hypnosis
   2. Antisocial Behavior
   3. Aggravation of Symptoms
   4. Qualifications of Hypno-Interviewer

Addendum
   - Hypnodrama of John (Translated from Dr. J. L. Moreno's book).

F. L. Marcuse. *Hypnosis—Fact and Fiction.* Baltimore: Penguin Books, 1959. Pp. 224. 95¢.

By William T. Heron, Ph.D.

This is a book of strange contrasts and contradictions. Written as a paperback book for the general public and, the author hopes, also for use by teachers, the book falls short of either mark.

For the general public the book is supposed to allay fears about hypnosis. But we know that the public often finds what it is looking for, and as the author describes situations in which the hypnotic subject sees cats where there are none or writes of his own stage-like demonstrations of hypnosis (p. 181), one wonders if the public will not find nourishment for its fears.

On the other hand, the author cites the sometimes beneficial results of hypnotic treatment. This part will be read avidly by that small percentage of the public which is seeking a way out of difficulties. The author points out that there are no statistics available to indicate the percentage of success, but will those who are yearning for help pay attention to this fact and thereby temper their aroused expectations about the therapeutic value of hypnosis? Why not let the professional man prescribe hypnotic treatment when on the basis of his knowledge and experience he believes that it stands a choice of being helpful, instead of propagandizing the public so that the distressed ones will madly clamor for hypnosis?

Also the public is left with only the name of Bernstein of Bridey Murphy fame to associate with hypnosis. This is the only name of a modern worker with hypnosis which is used in the text of the book. The names of all the serious present-day workers, both experimentalists and clinicians, are omitted. In the text of the book the author says frequently that "the clinician" did or said so and so. The public could easily believe that Marcuse is always "the clinician." Wouldn't it be just as easy to give the name of "the clinician" and thus give credit where credit is really due?

Marcuse in the preface says that it was his decision to mention as few names as possible. Why was it impossible to omit Bernstein? The author says (p. 12) that the book "is intended to deal with the field of hypnosis rather than with individuals and their contributions." When an author fails to give the specific sources of his material and at the same time says (p. 11) that it has come from "books, professional journals, magazines, lectures, newspaper articles, and personal experiences," the reader is forced into the position of putting complete faith in the author's omnipotence to separate fact from fiction.

This omission of specific sources in a book of this nature is sufficient, in the reviewer's opinion, to eliminate the book as teaching material, except possibly as a good example of what *not* to do.

Another reason to question the book as classroom material is that the author apparently has an axe to grind. Perhaps this is the first time that a Pelican Book has been used as an advertisement for a particular American organization. In this country there are two organizations of physicians, dentists, and psychologists dedicated to the scientific study of hypnosis. Of these two, the smaller, the Society for Clinical and Experimental Hypnosis, is mentioned by name by Marcuse several times, and the public is invited to contact it for information (p. 200).

Marcuse refers obliquely to the other organization, The American Society of Clinical Hypnosis, when he says (p. 35), "Other American professional associations with lower standards for membership admission have appeared on the scene." The membership requirements of this "other American professional association" would seem to meet Marcuse's requirements precisely. He says (p. 196), "It would be the author's recommendation that any professionally qualified individual who has met certain minimum standards set up by a professionally interested group be allowed to utilize hypnosis in his own specialty." If the one organization does have lower standards than the other, which is doubtful, nonetheless these standards apparently meet with Marcuse's approval. Why then does he praise the one organization and depreciate the other? This is not for the reviewer to answer.

Now to come back to this matter of where an individual may receive information about hypnosis. The efficiency of Marcuse's favorite organization in providing such information is well indicated by Marcuse himself (p. 198): "A qualified professional man, A, wishing to be instructed about the uses of hypnosis, wrote to B (the writer), who referred him in good faith to C, who had a similar professional background to A and furthermore was president of a professional society utilizing hypnosis. C in turn, however, referred him to D, an official of the Society for Clinical and Experimental Hypnosis, who in turn referred him back to B and thus the slight-

ly unfortunate circle was completed." The amount of time required to complete this cycle is not mentioned. (The reviewer wrote months ago to the President of the Society for Clinical and Experimental Hypnosis for information, and to the date of this writing has received no word from him except that, after another inquiry, his secretary acknowledged receipt of the letter.)

There are many other bits of misinformation and contradiction in the book. Just one example: The author points out that there is no loss of consciousness in the hypnotic state, but then later he says (p. 179) in speaking of producing hypnosis by crystal gazing: "Amnesia is then suggested for the fact that there was any lapse in consciousness." If there is any difference between loss of consciousness and lapse of consciousness the reviewer fails to perceive it.

The book is interesting to read, and while the reviewer feels that he has a reasonably good acquaintanceship with the scientific literature on hypnosis, there are a number of accounts in the book of which he has not heard. He would be glad if only the specific sources of this material were given so that he could judge its value for himself.

As with all things in life, there is some good in the book as well as bad, but it is the reviewer's judgment that the net result is not good.

ABSTRACTS OF CURRENT LITERATURE

Edited by Bernard E. Gorton, M.D.

The abstracts below which are followed by the letters P.A. are reprinted from Psychological Abstracts through the courtesy of the American Psychological Association.

30. Naruse, Gosaku. Recent developments of experimental hypnosis in Japan. *Psychologia,* 1959, **2**, 20-26.

The development since World War II of research in hypnosis and the organization of Nihon Saimin Kenkyukai (The Japanese Society of Hypnotism) is summarized, and an account is given of researches in hypnotic image formation, conditioning, motivation, depth of hypnotic trances, and miscellaneous psycho-physiological phenomena. (M.H.E.)

31. Kaplan, A. H. Psychological factors in the practice of dentistry. *J. Amer. dent. Ass.*, 1958, **57**, 835-843.

Psychological factors connected with dental suffering should be understood in order to deal effectively with dental pain of physical origin. Early reactions to oral gratification set up a pattern of behavior which is unconsciously adopted later in life. This pattern in connection with psychophysiological activity produces changes which are responsible for some types of dental disease, and statistical research seems to indicate a positive correlation between anxiety and dental disorders. Nevertheless in the majority of cases emotional factors complicate rather than specifically cause dental disease. An understanding of personality variations helps in caring for the emotional patient. Mechanisms unconsciously adopted by the patient to cope with his inner tensions (hypersensitivity, bruxism, thumbsucking, etc.), as well as the effect of dental deformity on the personality, all call for techniques to relax the patient without resorting to psychiatric practice. For the best approach the dentist must himself feel secure and be fully relaxed in recognition of the fact that the patient's reaction is usually against the oral attack and not the dentist. Education in the development of personality and the science of psychodynamics is recommended for the dental student to facilitate this approach. (S. Irwin Shaw.)

32. Chapman, L. F., Goodell, H., and Wolff, H. G. Changes in tissue vulnerability induced by hypnotic suggestion. [Authors' abstract.] *Federation Proc.*, 1957, **16** (1).

Peripheral nerve action can result in alterations that both damage the tissue subserved and make it more susceptible to injury. Significantly more skin damage following exposure to similar amounts of tissue-damaging stimulation occurs in the "flare zone" of an axone reflex produced by noxious stimulation than in control areas (Bilisoly, Goodell and Wolff. *Arch. Int. Med.* 94:759, 1954). Subsequent observations have demonstrated increased tissue vulnerability associated with alterations induced by hypnotic suggestion. Three subjects in deep hypnosis immersed one arm and then the other in a tank of water at a temperature of 34° C. For the test arm the water was suggested as being "very hot"; for the control arm, as "comfortable, neither hot nor cold." Suggestions were made that the test arm was "burned," "injured" and "painful"; the control arm was "intact" and "comfortable." Both arms were immediately exposed to similar amounts of focal tissue-damaging stimulation (thermal radiation or trichloracetic acid). The injured regions were examined and photographed at intervals thereafter. Significantly more skin damage was observed on the arms in which injury had been suggested than on the control arms. Pain threshold and finger pulse amplitude measurements indicated local minute-vessel dilatation during the phase of increased vulnerability. Such vasodilatation has been shown to be linked with increased vulnerability and probably plays a role in the vulnerability induced by hypnotic suggestion. From other related observations it sems likely that a chemical substance or substances also participates in the reaction.

33. Chapman, L. F., Goodell, H., and Wolff, H. G. Tissue vulnerability, inflammation, and the nervous system. (Paper read at the Annual Meeting of the American Academy of Neurology, April 1959).

Previous studies by the authors have shown that many of the body's organs become more readily damaged during periods perceived as threatening. These changes could be induced rapidly by appropriate alteration of the environment, as by interviews which augmented or decreased the perception of threat. In the present experiment, following standard amounts of noxious stimulation on the forearm during hypnosis, increased inflammatory reaction and tissue damage were observed in subjects who had received the suggestion that the forearm was tender, painful, and injured. Diminished tissue damage was observed when the forearm was suggested to be anesthetic. Recordings of finger pulse amplitudes and skin temperature indicated that local vasodilation following exposure to noxious stimulation begins more rapidly, is larger in magnitude, and persists longer in the "vulnerable" arm. The subcutaneous space of the forearm was perfused with normal saline. Increased amounts of a bradykinin-like substance were observed both when the site of noxious stimulation was directly over the region perfused or when a zone of axon reflex flare from a noxious stimulation involved the perfused area. The bradykinin-like substance induces vasodilation, increases permeability, and lower pain threshold and probably exhibits other properties relevant to the inflammatory reaction (bradykinin is a breakdown product of serum protein). In the hypnotized subjects, both arms were perfused simultaneously. The perfusate from the arm suggested to be painful, tender, and damaged contained more bradykinin-like substance than did that from the arm suggested to be anesthetic. These observations suggest that the neural apparatus may alter the tissue subserved in such a way as to augment inflammation and to increase tissue vulnerability. The liberation of proteolytic enzymes and a bradykinin-like humoral agent is implicated in this reaction. (B.E.G.)

34. Dittborn, J. M. Expectation as a factor of sleep suggestibility. *J. clin. exp. Hypnosis*, 1958, **6**, 164-170.

An unspecified number of subjects tested for postural sway were also subsequently exposed to repetitious presentations (oral or visual) of the words "dream" and "sleep." Subjects who had previously been hypnotized were found to enter a state similar to hypnosis. Subjects who had never been hypnotized entered a sleep-like state differing from hypnosis. No correlation was found to exist between postural sway and the above test of suggestibility. The author concludes that expectation seems to be a fundamental factor in sleep suggestibility. (A.M.W.)

35. Chertok, L., and Kramarz, P. Hypnosis, sleep and electroencephalography. *J. nerv. ment. Dis.*, 1959, **128**, 227-238.

This is both a review and evaluation of studies dealing with hypnosis and EEG published between 1948 and 1957 and a report of the author's own work on 10 subjects. They conclude that the discrepancies between the reports of various investigators are largely due to methodological difficulties and to the complexity of hypnotic phenomena. Their own investigation led to varying results: Of the 10 subjects, 6 showed no significant differences between waking and hypnotic tracings; 2 showed tracings of light sleep which changed to waking patterns as soon as communication was reestablished. For the other two subjects the tracings were ambiguous. Bibliography of 29 items. (A.M.W.)

36. Orne, M. T. The nature of hypnosis: artifact and essence. *J. abnorm. soc. Psychol.*, 1959, **58**, 277-299.

The hypothesis that the subject's "knowledge" regarding behavior in hypnosis influences his own hypnotic behavior was tested and supported by the results. Other experiments performed by the author support the hypothesis that the demand characteristics of the experimental procedures may be a significant determinant of the subject behavior. The author was also able to show that motivated waking performance can surpass hypnotic performance with respect to physical endurance.

"Real" and "fake" subjects were found to differ mainly in the higher tolerance of the "real" subjects for logical inconsistencies.

The author concludes that in the absence of objective indices of hypnosis the existence of trance may be considered a clinical diagnosis. (A.M.W.)

37. Kline, M. V. Soviet and Eastern trends in hypnotic research. *Int. J. Parapsychol.*, 1959, **1**, 89-105.

The author briefly reviews and contrasts some of the research being done in the West and in the U.S.S.R. in the field of hypnosis. He concludes that "the most significant aspect of contemporary research in hypnosis is its movement back into the main stream of psychological theory and concepts." Bibliography of 5 items. (A.M.W.)

38. Raginsky, B. B. Temporary cardiac arrest induced under hypnosis. *Int. J. clin. exp. Hypnosis*, 1959, **7**, 53-68.

"An experiment is described in which the symptoms of syncope and temporary complete cardiac arrest were induced under hypnosis in a patient who had been operated on for a so-called Adams-Stokes syndrome and who had, until the time of the experiment, remained free of such symptoms. An attempt is made to correlate contemporary knowledge in explaining this phenomenon." (A.M.W.)

39. Rosenberg, M. J., and Gardner, C. W. Case report. Some dynamic aspects of posthypnotic compliance. *J. abnorm. soc. Psychol.*, 1958, **57**, 351-366.

Case-record data drawn from a recent experimental study were found to confirm two hypotheses derived within the context of a general, psychoanalytically oriented theory of hypnosis. According to one hypothesis, posthypnotic compliance is "facilitated by the subject being able to interpret the content of the posthypnotic suggestion in a manner consistent with the mechanisms and affective reactions that, for him, characterize and maintain the hypnotic relationship." According to the second hypothesis, this compliance "is viewed as facilitated if that suggestion permits the subject safely to express and indulge a previously warded-off and conflicted drive." (A.M.W.)

40. Barber, T. X. The afterimages of "hallucinated" and "imagined" colors. *J. abnorm. soc. Psychol.*, 1959, **59**, 136-139.

"These experiments indicate that another claim for the 'hypnotic transcendence of normal functions' is not substantiated. *Some* individuals 'hallucinate' a color and 'see' its appropriate after-image after a minimal 'hypnotic induction procedure'; other individuals do essentially the same thing *without* a 'hypnotic induction procedure.' In fact, some Ss do *better* on this task without the 'hypnotic procedure.' However, these experiments also indicate that 'trance' behavior may be an essential component in 'projecting' or 'hallucinating' colors." (A.M.W.)

41. Mangan, J. T., S. J. Hypnosis: A medico-moral evaluation. *Linacre Quart.*, May 1959, 1-10.

This evaluation is based on the results of a questionnaire sent to six leading medical hypnotists. It includes sections on the nature of hypnosis, the medical uses of hypnosis, dangers, and moral evaluation, with particular reference to the opinion of the Roman Catholic Church on this last matter. In final conclusion, the author states: "When hypnosis is medically indicated, it is morally unobjectionable, that is, if employed by a reasonably trained professional." (A.M.W.)

42. Schneider, E. Die hypnotische Person. *Acta psychother. psychosom. orthopaedagog.*, 1956, **4**, 325-329.

The hypnotic person is a fusion of the subject and the hypnotist. The former's consciousness is replaced by the latter's. The subject moves nearer the instinctual and, thereby, to the bodily sphere. As a result of the subject's complete adaptation to the hypnotist, the fulfilment of commands takes place with complete accuracy, implying absolute obedience. (P.A.)

43. Biddle, W. E. Investigation of the Oedipus phantasy by hypnosis. *Amer. J. Psychiat.*, 1957, **114**, 175.

A series of 100 subjects was regressed in hypnosis to a level of 3 years and interviewed concerning their Oedipal phantasy. It is concluded that the Oedipal phantasy as posited by Freud is not found regularly but that children of both sexes "strive for a shared spiritual union with both parents." (P.A.)

44. Das, J. P. A theory of hypnosis. *Int. J. clin. exper. Hypnosis*, 1959, **7**, 69-77.

The author makes the assumption that hypnosis is a form of conditioning and a state of inhibition. Evidence supporting this premise is reviewed briefly. According to the theory, hypnosis is a learned state of partial cortical inhibition which can be expressed as a multiplicative function of learning and inhibition: $H = f(L \times I)$, where H = hypnosis, L = learning, and I = partial cortical inhibition. The experimenter goes on to make predictions and explain various hypnotic phenomena on the basis of his equation. (A.M.W.)

45. Das, J. P. The Pavlovian theory of hypnosis: an evaluation. *J. ment. Sci.*, 1958, **104**, 82-90.

Pavlovian theory considers hypnosis as a state intermediate between wakefulness and sleep. An experiment with four subjects was carried out in which monotonous sound and light stimuli were applied and a state of inhibition (drowsiness) resulted. The results suggest that the development of inhibition improves with practice and may be correlated positively with increasing hypnotizability. (B.E.G.)

46. Anderson, M. N. Hypnosis in anesthesia. *J. med. Ass. Ala.*, 1957, **27**, 121-125.

The history and some theories of hypnosis are briefly reviewed, and a case of surgery under hypnotic anesthesia is reported. (B.E.G.)

47. Bryant, M. E. C. Hypnosis: its use in control of pain in major injuries. *Brit. J. med. Hypnot.*, 1957/58, **9** (2), 36.

A case is reported of a young woman who suffered severe pain following an automobile accident which was intractable to narcotics but responded to hypnotic anesthesia. (B.E.G.)

Excerpta Medica (The International Medical Abstracting Service), a monthly publication, in its Section VII: Neurology and Psychiatry regularly contains abstracts of the world literature on hypnosis in the portion devoted to Psychiatry under the serial heading 62, as listed in the Table of Contents of each issue. Researchers will find this a very valuable and easily checked source of reference. (B. E. G.)

UNCONSCIOUS OR CO-CONSCIOUS? REFLECTIONS UPON CERTAIN RECENT TRENDS IN MEDICAL HYPNOSIS

by André M. Weitzenhoffer, Ph.D.[1]

For many years now, lay hypnotists, stage hypnotists, and various other professional hypnotists[2] have been extolling, often with great enthusiasm, the quasi-magical powers and virtues of the "unconscious," with the further usual explanation that hypnosis is the tool or method *par excellence* for obtaining access to and control over it. They had until recently tended to limit themselves to the notion that many, if not all, hypnotic suggestions are carried out by the "unconscious," and that the latter is all-powerful and wise. From this one easily obtains an obvious working principle which ought to make a superman out of every person who can be hypnotized, and which is unfortunately too often the exact picture which the public at large has of hypnosis. Having been exposed to this sort of thing for over 24 years of close contact with hypnotism, realizing that this went on long before I became interested in this topic, and that it will probably go on for a great many years to come, I have ceased to be much disturbed by it insofar as the laity is concerned. I cannot say the same where the medical and related professions are concerned. In recent years there has been a growing tendency for medical hypnotists to make various empirically unfounded allusions to the "unconscious" in relation to hypnosis. No matter how nebulous this notion may be at times, I can see no great harm in this as long as its applications remain in the domain of explanation and theory, although scientific hypnosis is not likely to be advanced by this sort of thing. What does concern me is the way in which more and more medical hypnotists seem to be relying upon certain doubtful and certainly undemonstrated principles relating to the "unconscious"; and, worse, are increasingly attempting actually to use their patient's "unconscious" as a major tool with what seems to me but the vaguest notion of its nature and with unfounded beliefs rather than demonstrated facts regarding what it can do to guide them in using it. As I shall try to show, there is a strong possibility that several referents have been confounded here and that several distinct kinds of psychic structures or systems are being mistakenly taken one for the other under the one designation of "unconscious." In particular, I have a distinct impression that for the most part medical hypnotists are using the term "unconscious" in essentially what they mistakenly conceive to be the analytic meaning of the term, i.e., in much the same sense as it is employed in connection with standard hypnoanalysis such as defined, for instance, by Wolberg (1) or Brenman and Gill (2). It will be the twofold and main purpose of the remainder of this article to explain why I question the identity of the present "unconscious" as currently being conceived with the analytic unconscious, and to try to elucidate the true nature of the former.

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[2] By professional hypnotist I mean any individual who professes to use hypnosis, offers his services to the public in this capacity, and who has not received academic training leading to a degree in psychology, dentistry, medicine, or a related field. Since the current practice is for most professional men not to call themselves hypnotists even though they may make much use of hypnosis, the distinction is rather clear-cut.

1. RECENT USES AND DEFINITION OF THE "UNCONSCIOUS"

From what I have just said it should be clear that I am primarily concerned with a very specific but widespread usage of the term "unconscious." I shall not attempt, especially in this section, to distinguish it from other concepts of the "unconscious," of which quite a few exist. Some are, in the first place, not particularly or directly relevant to hypnosis and hypnotherapy. Others will be better discussed further on. I would like instead first to try to define it without particular reference to other concepts. This can be best and most easily done by describing the manner in which hypnotists currently operate on and work with this "unconscious." The initial step always consists in establishing a *direct* two way communication with the patient's "unconscious." Contacting the latter is amazingly simple since it usually is done by merely saying to the hypnotized subject[3]: "Let your unconscious do such-and-such," "I wish to ask your unconscious a question," or still, "Your unconscious can answer the next question I will ask," or finally, "I am going to ask some questions of your unconscious." There are many possible variations of this, but the technique remains essentially the same. A system of signals is then proposed to the subject's unconscious, of which the following two are the most popular:

1. *The Finger Motion Method* in which the hypnotist instructs the "unconscious" to move one index finger up to say "yes," and the other to say "no." In addition, the instruction may also be added that one thumb can move to mean "I do not know," and the other thumb can move to signify "I do not care to answer this question." A further variation consists in allowing the patient's "unconscious" to select the "yes" finger.

2. *The Pendulum Method* in which the subject is asked to hold a pendulum such as one used in the Chevreul Pendulum Test and the following instructions given to the "unconscious." A clockwise rotation will mean "yes," counterclockwise, "no," sideways, "I do not know," and to and away from the patient, "I do not care to answer." In some cases only the first two movements are used, and very often the "unconscious" here too is allowed to select the "yes" movement.

Whichever one of these techniques or their variations is used, the communication with the "unconscious" which ensues assumes essentially the form of a sort of Game of Twenty Questions with obvious differences. Once communication has been established, a variety of things can be done. Two of the most noteworthy ones have been getting the patient's "unconscious" to estimate his depth of hypnosis, and, in the case of pregnant women, to determine the sex of the fetus. I have discussed these two applications and others to considerable extent in another paper (3) and will not go into further details here beyond pointing out that it is my opinion that it is far from being demonstrated that the results which have been reported admit of only one interpretation. A frequent use of these questioning techniques is to discover or "check" a forgotten traumatic childhood incident, to establish the psychogenic nature of an ailment, and so forth.

From this it may be seen that the "unconscious" in question is a psychic system or entity which is made to manifest itself by usually simply requesting the hypnotized individual to allow it to do so through a system of coded

[3] This and what will be described below can often be obtained with individuals who have not been taken through an obvious induction procedure. Most of what will be said in this paper applies equally well to the two situations and for simplicity of discussion the remainder of the paper will be in terms of hypnotized individuals.

and specified muscular contractions. The directness of both the way the responses are elicited and the way they manifest themselves is highly characteristic of this "unconscious." A question is asked directly and is usually answered equally directly in a straightforward manner, at least the hypnotist reacts to it as if it were.

Quite recently two innovations have been introduced in working with the "unconscious" in hypnosis. It seems to be based upon the notion that "unconscious" activities can essentially parallel those of the "conscious mind." In fact, the picture of the "unconscious" one usually gets these days after watching for a while its manipulation by medical hypnotists is that of an entity which has essentially all of the characteristics of the "conscious" plus some of its own. In any event, the subject's "unconscious" may be asked to have the same sort of ideational experiences which have traditionally formed the core of hypnotic experiences but in such a way now that whatever normally passes for the conscious part of the individual during hypnosis will not be aware of these experiences. Thus, a hypnotized individual is now conceived as being able, for instance, to hallucinate or regress at either a conscious or an "unconscious" level. Some hypnotists will at times even insist that some subjects who are unable to have, say, a hallucination in the old sense can have it at the "unconscious" level and may indeed be actually having it spontaneously in this manner. Subjects are also now frequently instructed to "review in their unconscious," or to "let their unconscious review" various past events, including forgotten childhood events, if they cannot do it consciously. For instance, recently I heard and saw a physician teaching hypnotic techniques to others say and do the following: He had asked his hypnotized subject to recall and re-experience a forgotten event related to a difficulty of which he had complained. The subject indicated he could not do this, whereupon the hypnotist went on somewhat as follows: "Go deeper, still a little deeper . . . Your unconscious knows what happened and can review it even though your conscious mind may not be able to remember . . . . " The hypnotist went on to tell the patient to do this sort of reviewing and, turning to the class, continued by pointing out to the latter that indeed a hypnotized person might not be able to have a suggested experience in the traditional way, but could have it at an "unconscious level." After witnessing more of the same sort of thing, it became clear to me that, as a matter of fact, this particular instructor was convinced that any individual he judged hypnotized who did not report having a suggested experience in the usual manner could be assumed to be having it at least at the "unconscious" level. Were this an isolated instance I would make no further issue about it. Unfortunately there is something contagious about this kind of approach, which is understandable, since the hypnotist can never fail and every subject is a good subject at one level or another. Whatever the reason is, this is an approach to hypnosis which is spreading. There is no doubt that I strongly favor an objective, scientific approach to hypnotic phenomena, hence I may be inordinately biased against the kind of thing I have just described. Still it seems to me that even if the above is true, the time has not yet arrived when we understand hypnosis so well that we can dispense with objective criteria,[4] particularly when this is in

[4] I feel certain that those who subscribe to the above technique will argue that they do use an objective criterion, for they will often ask the subject's unconscious to indicate whether or not it is having the desired experience. I hope to show later in this

[*footnote continued on next page*]

favor of depending on the "unconscious" which we understand no better. But to do so when the truth of the above still remains to be established seems foolhardy, to say the least.

There are a couple of other features of this "unconscious" which ought to be mentioned. From the discussions and manner of handling the "unconscious" which I have witnessed, it seems rather clear that it has great wisdom, unlimited resources and resourcefulness, and that through hypnosis it is possible to tap, mobilize, and direct or use constructively all of this for the greater well-being of the patient. In many instances, it would appear that all one needs to do is to instruct the "unconscious" to do this in just about so many words. In addition there seems to be an increasingly widespread belief that the patient's "unconscious" will protect the patient against any mistakes the hypnotist might make.

As I intimated earlier, notions about the "wisdom of the unconscious," about the "powers of the unconscious," are nothing new. One finds these appearing and reappearing throughout the history of hypnotism as well as in totally unrelated areas. From an objective, scientific standpoint, there is nothing factual about any of this; it is merely a matter of belief, an act of faith. It may also partly be a function of what we agree to call the "unconscious." I have nothing against anyone believing in the above, but I would hope that they, especially if professional men, would discriminate between *beliefs* and *facts*, and recognizing that it is more of a lore than a fact, be very circumspect in using it as the basis for what they do with hypnosis, as well as in their teaching.

article how unreliable a technique this can be for establishing the reality of any kind of "unconscious" activity.

2. NATURE OF THE "UNCONSCIOUS"[5]

I remarked above that it was my impression that medical hypnotists were for the most part taking it for granted that what they have recently called the "unconscious" is the same thing as what analysts designate by this term. Now I could be wrong and reflecting on my own personal biases. I must admit that my basic orientation is psychoanalytic and that when I think of the "unconscious" I usually think first in terms of the analytic conception of the latter. I believe I have myself taken for granted that nowadays most professionals mean some sort of Freudian-like unconscious when they use such a term. Certainly modern psychology and psychiatry as a whole seem pretty much to have accepted this conception, especially where psychopathology and psychotherapy are concerned. For this reason, if for none other, it has seemed natural to expect

[5] In view of some comments with regard to reification which were made in respect to my use of the expression "the unconscious" by one of the editors of this Journal following my submission of this paper for publication, a note seems in order here to offset any further misunderstandings. When talking for myself I use the expression "the unconscious" as a convenient abbreviation denoting a certain totality or system of unconscious processes having certain characteristics, and I neither think of this totality as having a spatio-temporal locus or being an entity in any other sense of being an object of discourse. On the other hand, when I am talking about these unconscious processes as some other writer writes about them, I am no longer presenting my own concept but his, and if this includes a reification, this should obviously not be ascribed to me. These remarks, I would like to add, apply equally well to my use of such terms as "ego," "id," etc., in this paper. In any case, I must emphasize the fact that the question of reification is not the problem being considered and is not even relevant here, for I am only concerned with deciding which ones of a number of possible systems of unconscious processes are being subsumed under the expression "the unconscious" by current medical hypnotists.

modern physicians to be following suit, particularly when the general lack of any attempt to define it would seem to imply that it is being used in some well-known, accepted, standard way. Although it may be that the majority of medical hypnotists using the expression "the unconscious" are doing so meaning nothing more than the totality of neural or mental processes lying outside of the "awareness" of an individual, this has seemed unlikely to this writer for the reasons that whatever background they have in psychiatry and psychology would most likely be obtained from sources using the above expression in the analytic sense; and more so because the very manner in which they utilize this concept shows that they do ascribe to it at least some of the properties of an analytic unconscious. This last, of course, does not necessarily make it one, and the question I want to raise is to what extent is such an identification justified?

In order to do this let us review very briefly a few facts about the analytic concept of the "unconscious." To begin, in order to distinguish it from the general, unspecified, notion and others, I will henceforth follow Freud's original terminology and speak of the *system Ucs* or the *Ucs* for short.

The *system Ucs* consists of formerly conscious processes or their representatives that have been expelled from the realm of consciousness and prohibited from reentering it, and certain primordial and infantile wishes and impulses that never gained access to the conscious. One important feature of the *Ucs* is that its contents and processes cannot be brought to awareness by ordinary means, the breaking down of "resistance" always being a prerequisite for this. The *system Ucs* is said to be timeless and knows no contradictions. Its activities are not affected by either the demands of reality, time, order, or logic. Thus the *Ucs* is strictly amoral and alogical. It is also said to be governed by the "primary process," which is concerned mainly with the discharge of excitation. From the standpoint of psychoanalytical theory, and not necessarily of only orthodox Freudian theory, it is not only meaningless but a contradiction to speak of the *Ucs* as having intelligence, being aware, deciding, and understanding. One can speak of the *Ucs* thinking but only in a very restricted elementary sense which does not include thinking as a determined course of symbolic ideas initiated by a problem or task and leading to a conclusion. Whether one can ever observe pure manifestations of the *Ucs* is problematical, since it can not be observed directly. Were one to observe behavior determined purely by the *system Ucs* one would expect to observe the very same characteristics that have been listed above for the *Ucs* as characteristic of this behavior. In practice this is rarely, if ever the case, for several reasons. To begin, all adult behavior is a compromise between the influence of the primary process and of the "secondary process," that is, of reasons and volition. Thus, one is more likely to see prelogical[6] than strictly alogical thinking, some evidence of a time sense, etc., whenever the influence of the *Ucs* is strong. In addition, because of the resistance which prevents *Ucs* material from entering directly into consciousness, much unconscious material becomes distorted through the influence of the various ego defenses. In addition two other processes, dramatization and secondary elaboration, contribute to further distortions. Dreams and other related effects such as automatic writing under certain conditions are the best examples of the way the *Ucs* can man-

[6] I do not mean to imply that all prelogical experiences in adults originate thus. Because much repression takes place during childhood, such material naturally shows infantile characteristics.

ifest itself in normal individuals under favorable conditions. Generally speaking, the less influence the secondary process exerts, the more one is likely to see the above in the behavior of individuals, and conversely. In any case the main point that I wish to make is that behavior in which the *system Ucs* dominates will be characteristically quite different from normal, "conscious" behavior.

Since I will have occasion later to refer to it, the *preconscious* might as well be mentioned here. It is a system consisting of processes which are normally outside of awareness but just on its fringe, and which are readily and directly available to the conscious, there being no resistance to overcome. Other attributes of the preconscious are essentially those of the conscious. In particular the secondary process governs the preconscious. In the past analytic psychology has paid rather scant attention to preconscious activity. It is my opinion that much which is customarily loosely ascribed to the *Ucs* probably really belongs to the preconscious, and in particular that much of what we observe in connection with hypnotic behavior may be preconscious activity.

Although one sometimes gets the impression in reading Freud that the unconscious-preconscious-conscious triad is on a continuum, this is not so. Freud recognised this when, after saying there were two sorts of "unconscious," he added, the "unconscious proper" and the "preconscious." Furthermore, the basic difference between the attributes of the *Ucs* and of the two other systems excludes the possibility of their being part of a single continuum of "consciousness." The notion of a continuum in the form of some sort of notion of "depth" is one which keeps recurring in various ways in connection with both the "conscious" and the *Ucs*. Thus analysts speak of "depth psychology," some of them talk of making interpretations at "different levels of the unconscious," and it is not uncommon to hear professional men speaking of something being "deep in the unconscious," or some variation of this. Yet there seems to be nothing in the writings of Freud and of other well-known authorities in this area which would justify talking in this manner, except by some sort of analogy. It is possible that the idea of "depth" often refers to the comparative difficulty one may encounter in getting various material in the *Ucs* to manifest itself. It is easy to see how one could come to think of such material being more or less "deeply imbedded" in the unconscious. Similarly, in connection with repression there is a tendency to perceive repressed material as "pushed under" more or less "deeply."

Let me now return to the "unconscious" productions defined in the last section. From the very first time that I witnessed demonstrations of this sort of communication with the "unconscious" about two years ago, I felt troubled by something present in the situation which I could not pinpoint. Even after I tried using the technique the feeling persisted. Some time ago, however, while working with a good hypnotic subject using the Finger Motion Method, I began to feel an increasing need for a form of communication which would involve more than just four coded signals. It struck me that if the subject's "unconscious" could move his finger as well as it did, it ought to be able to write answers too. In this thought there was really very little originality, since automatic writing has long been used by hypnoanalysts to obtain *Ucs* material. Following this idea, I first asked the subject's "unconscious" if this would be possible and subsequently whether it would be willing to continue to communicate with me by this new means. Having obtained affirmative statements to both

these questions, I made the necessary arrangements. The first question I asked the "unconscious" to write an answer to was what is the name of the subject, and what is the date. My next question was aimed at ascertaining whether I was still dealing with the same psychic entity I had initially started out with. My question was therefore: "Were you answering me a while ago by moving some fingers?" Again the answer was in the affirmative. Thereupon I proceeded to obtain very satisfactory automatic writing—in fact much too satisfactory! Being familiar with cryptesthesia and other manifestations of the *Ucs*, I realized very shortly that what I was getting had none of the characteristics of this sort of production. Instead it was exactly the type of writing a "conscious" mind would write in answer to questions by another "conscious" mind. It was then that it dawned on me that what had troubled me previously was simply the fact that none of the conversations I had witnessed between hypnotists and the "unconscious" of subjects had shown any evidence of being more than a conversation between one non-hypnotized person and one who was hypnotized. Admittedly it is difficult to ascertain such a thing in a situation in which at least half of the conversation is done strictly in a very limited sign language. But even under such conditions it should have been possible to detect a difference. At least I think I could have done so. Since the above experiment was done, I have repeated it with four other good subjects with the same results. I might add that with these I have always made a point to ascertain by asking the "unconscious" at the start of the writing and at the end whether or not the depth of hypnosis had changed with respect to what it was during the initial use of the finger technique with which I always started. The answers have always indicated either no change or a deepening. Thus, the failure to get more characteristic automatic writing was not caused by the new task interfering with the hypnotic state. Furthermore I would like to add that these subjects were in a depth which was ample for obtaining good characteristic automatic writing in the traditional sense and manner. These five experiments do have the one failing that this is one control that I never obtained. On the other hand this failure does not invalidate the conclusion that I would draw, which is that whatever the "unconscious" of these subjects was, it was not the *Ucs*. I also strongly suspect that it was probably not the latter with which the hypnotists I have watched were communicating with either. I cannot say that I have proved this to be a fact, but I feel my findings strongly suggest it.

The possibility that the "unconscious" we are discussing is not the *system Ucs* of psychoanalysis does not exclude the possibility that we are still dealing here with a psychic system which operates outside of the subject's "awareness" and hence which constitutes an "unconscious" in a more general sense. Let us then examine a little further what kind of an entity we are dealing with here. As I have intimated earlier, my general impression of the conversations between hypnotists and "unconscious" I have recently witnessed were hard to distinguish from a conversation between two conscious individuals. My observations obtained when using the techniques of the previous section to make the initial contact throw further light on this. On one occasion, for instance, I asked the "unconscious" to describe itself. I was told through automatic writing that it was a red-haired, blue-eyed, 10-year-old girl! (My subject in this instance was a woman past thirty.) On another occasion I asked the "unconscious" such questions as where it was, how it

felt, what position it was in. I also touched, pinched, pricked, etc., the subject without of course telling the "unconscious" I was doing this. This outcome of all this was that the "unconscious" showed itself to be an entity possessing an *awareness* of its own apparently no different from the subject's normal awareness, which made use of the subject's sensory input, and which had a "self." Furthermore, in the above case of the "unconscious" describing itself as a little girl, it became evident subsequently that this description had been determined by something which could only be referred to as another "unconscious," one which this time had much more the characteristics of the Freudian *Ucs.* I have detected further evidence of a second "unconscious" at work in the productions of the subject's "unconscious" not only in this one particular production but in many others. It would thus seem that at least some of the so-called "unconscious" which are communicated with by means of the methods outlined earlier, possess awareness, have a "self," and an "unconscious" of their own which acts more like the *system Ucs* than they do! In sum, they possess "consciousness" and are capable of having a "personality" of a sort. Perhaps then the term "secondary personality" might be a better description of the entity we are discussing than the term "unconscious." I shall come back to this later, but first I want to consider several other aspects of the situation involved here.

Some astute reader may have asked himself the question somewhat earlier whether some of the results I have observed might not have arisen as a result of my indirectly and unwittingly suggesting to the subject or structuring the situation in such a way the "unconscious" would present the said characteristics. First let me point out that were this so, this would show the "unconscious" as behaving exactly as the hypnotized "conscious" mind of an individual would,[7] and hence would support rather than detract from my contention. In addition, in the final analysis this would partly contradict the usual position taken by medical hypnotists that the "unconscious" is capable of sufficient autonomy to protect the subject against the hypnotist's mistakes. Secondly, being very much aware and concerned about this possibility I have taken every possible care to eliminate this possibility. Still who is to say that when I said to the "unconscious," "Tell me what you look like," this was not equivalent to giving the suggestion: "You have a definite physical appearance which is different from the one I can see and you will now describe it to me." Or perhaps: "You now physically look quite different from what you looked when you came in. You can see yourself as you now look. Tell me what you look like now." I am afraid this matter must remain open for the time, but for the reason already given it affects very little my final conclusion. It does, however, lead into my next question which is what happens when one of the techniques discussed earlier is used to make contact with the subject's "unconscious?" Presumably after the induction of hypnosis we are dealing with essentially the same personality as we were before we hypnotized the subject. Obviously something has happened, but aside from his greater acceptance of ideas offered by the hypnotist and his greater willingness and desire to carry out requests from him, the subject is essentially the same per-

[7] There is of course a question of exactly what is the nature of the active mind of a hypnotized person. Such evidence as exists seems to indicate that the hypnotized individual is a conscious individual in whom the triads conscious-preconscious-unconscious and id-ego-superego are still to be found present and active.

son, the same self (4). Now the hypnotist says, for instance, with or without preliminary explanations, "Let your unconscious move your right index finger to say 'yes'." I think this is a rather remarkable statement, because while it is true that it may be addressed to the "unconscious" assumed to be listening in, so to speak, it is also said to the hypnotized "conscious" individual with all of the power of a suggestion, and the question can well be raised as to who is really lifting the finger? Even if the "conscious" individual does try to do exactly what he is asked to do, will he know what to do? I wonder how many lay individuals, if asked how they would go about letting their "unconscious" do something, would be able to give an answer. But leaving this aside, is the request any different really than say the request, "Let your finger rise," or the suggestion "Your finger is rising," or "Your finger is getting light, lighter, and lighter?" Now it is quite true that very often when such a suggestion is given the individual has the experience of his finger moving of its own accord, as if something quite apart from himself were doing this. Inasmuch as whatever process or mechanism is involved here lies outside of the subject's awareness, it may be said to be unconscious. But whether one should consider it to be the expression of an entity to be named and communicated with, the "unconscious," any more than the process which lies behind the knee jerk (also an "unconscious process"), is doubtful.[8]

At this point I think we might momentarily stop and look at what sort of alternative explanation we have. It may be that any time an individual is hypnotized it is his "unconscious" which, having become dominant, carries out all suggestions. In this case, the above request is either redundant, and the "unconscious" being aware of this ignores it, or the "unconscious" takes it as a request to bring about phenomena consistent with the notion of another entity named "unconscious" being active too. Secondly, it could be that in some way or other such a request given to a hypnotized subject really liberates a pre-existing autonomous entity called the "unconscious." Finally, the request is acted upon as a suggestion to produce either (a) behavior which would be consistent with the existence of an "unconscious" accompanied with the illusion and belief on the part of the subject that the behavior he produces is initiated and controlled by a system in himself of which he is not aware or, (b) an actual secondary autonomous psychic system which will have the required properties. I am prone to eliminate the first of these alternatives. The second alternative has greater possibilities in the fact that there does exist one system in every individual which has some, perhaps all the necessary requirements to become the "unconscious." This is, of course, the "preconscious" of psychoanalysis.[9] Finally, the last alternative (with its two subalternatives) seems to me to be one which must be considered extremely probable, and which most likely is responsible for at least some and I suspect many of the "unconscious" manifestations which are observed.[10]

[8] This is not to say that such a process can not become associated with an "unconscious" entity, but it need not be.

[9] It may have occurred to some readers that the part of the ego which is unconscious could be the answer here. This does not appear very likely to me, for the simple reason that apparently any ideational material produced by this portion of the ego automatically becomes translated in terms of the primary process and shows the same characteristics as any other productions of the *system Ucs.*

[10] I want to remind the reader that I am talking only of such manifestations as are being evoked by the current and new

[footnote continued on next page]

The occurrence of the last alternative seems an inescapable consequence of the extreme structuring of the situation by the hypnotist which so often takes place. Consider a few of the following examples which are a common occurrence and quite typical of what takes place in the majority of demonstrations of the use of the techniques described earlier.

EXAMPLE 1: Therapist: "Let your unconscious answer this question. Are you hypnotized?"
Finger: "No" (or "I don't know.")
T: "But the deeper part of your mind knows. Let the *deepest* part of your unconscious answer. Are you hypnotized?"
F: "Yes."

EXAMPLE 2: Therapist: "I want to ask your conscious mind a question. Are you hypnotized?"
Conscious: "No" (or "I don't think so.")
T: "But what does your unconscious say?"
F: "Yes."

EXAMPLE 3: T to "unconscious": "Are you hypnotized?" Nothing much happens. Therapist repeats question and still not much happens. A few more moments pass, then:
T: "Wasn't that a slight movement in your right index just now? Yes, I am sure there is a slight movement in that finger . . . "
Finger now rises to say "Yes."

EXAMPLE 4: T to unconscious: "I want you to think back to your childhood. Something happened then that is related to your present problem. You can remember. What was it?"
F: "I don't know."
T: "Was that *really* your unconscious answering just now?"
F: "No."
T: "That's all right . . . But now, let your unconscious answer the question this time. You can go back to a time in your childhood when you experienced something which is related to your present problem. Do you remember now?
F: "No."
T: "But there is a still deeper part of your mind that really knows the answer . . . let that deepest part of your mind answer. Did something happen?"
F: "Yes."

EXAMPLE 5: T to unconscious: "Now let's see . . . Your diabetes started about five years ago . . . Let me ask your inner mind a question. Is there anything that happened about that time which is connected with its onset?"
F: "No."
T: "All right . . . Go deeper, deeper . . . still a little deeper. Now your unconscious can remember something . . . You need not remember it in your conscious mind . . . only your unconscious . . . Now you remember something, don't you?"
F: "Yes."
T: "That's right . . . I am not going to ask you to tell me about it now, but during the week and until I see you again, your unconscious can review many times this experience and relive it in all of its details."

EXAMPLE 6: T after describing to the patient the LeCron scale for self-determination of depth continues by: "I want you to let your unconscious tell me how deeply hypnotized you are. When I next say 'now' tell me the first number that comes to your mind . . . Now!"
Subject: "15."
T: "Let's see if that is *really* correct. What does your finger say?" (The patient has been previously trained in the use of the Finger Motion Method.)
F: "No."
T: "Well, let's see how *deeply* hypnotized you *really* are." There follows a series of questions aimed at locating the position of the subject on the scale, which is at a higher figure than initially.

These samples ought to make clear the point that I want to make. The dominant feature in these examples, some of which are reproduced practically verbatim from situations I have witnessed, is, of course, that in every one the hypnotist forces the "unconscious" to give him the "proper" response by refusing to accept the first answer (and sometimes subsequent ones.) I ought perhaps to have given some examples of instances when the therapist accepted the first answers. As might be expected, no question is ever raised, no doubt is ever voiced by the hypnotist whether perhaps it might

techniques, not about those which were reported in earlier years and which resulted from the use of rather different methods.

not be the "unconscious" answering, or that there is really a truer answer which some deeper part of the mind can know. Sometimes, as in Example 6, a clear cue of what direction the answer lies in is given. There, the manner in which the therapist used the word "deeply" toward the end was a sure way of telling the subject he did not estimate high enough. At other times, a clear, direct suggestion to have the desired experience is given. For instance, in Example 5, the subject is told to have the experience of remembering something. The possibility of inducing paramnesias by hypnotic suggestions is too well demonstrated (4) to permit one to pass over this possibility lightly. Perhaps the "unconscious" did recall an actual event in this case, but the experience is certainly confounded with a possible induced paramnesia. What the above considerations boil down to is that not only does the hypnotist play a sort of Game of Twenty Questions with the subject in which he attempts to find out something, but in a way the subject probably also plays such a game in order to find what the hypnotist wants him to say. Perhaps one of the most extraordinary features of this process of interaction is that we find the hypnotist in these situations turning to an all-knowing, all-wise "unconscious" to get "the" answer, yet in the end making the decision of what is correct or incorrect. One can only wonder, "why does he bother with it at all if in the end he will accept only his own preconceived judgment?"

I mentioned above how it seems to me that there must be times when the subject may well be playing a guessing game with the hypnotist. In this connection I would like to raise for consideration the further question of just what does an expression such as "your unconscious," "your inner mind," or "the deeper part of your mind," really mean to the subject. This matter was particularly brought to my mind on an occasion when I was watching a 9- or 10-year-old child answering questions by means of finger movement. What does a child know about "the unconscious," about "his inner mind," I wondered. But for that matter, what does the average man in the street know about it? I wonder how often the reference to the "unconscious" or one of its synonyms really plays but a minor role in the elicitation of the desired response. We tell a person, "let your unconscious move your finger." I suspect that if we said to him, "Let your jabberwocky move your finger," we still could get the same results. Basically, in either case we are saying, "Let something else which is a part of you besides your conscious mind move your finger," or perhaps for some subjects, "Your finger will move as if something else besides your conscious mind were moving it," or again, "Move your finger but be unaware of doing so." Any of these suggestions could elicit an "unconscious" response without the mention of the "unconscious" or a synonym being ever made. We may well ask, indeed, just "who" is moving the finger.

And so I return to the question of what is the nature of this so-called "unconscious" which moves the subject's fingers in answer to questions. I have suggested that it might be the preconscious, might be "role-playing," or might be an artificial, quasi-autonomous psychic structure unwittingly brought into being by suggestions from the hypnotist. Let us then examine what other possible referent the "unconscious" might have.

Quite a few years ago Janet introduced a notion which became a very popular synonym for the "unconscious." The notion was that of the "subconscious." As far as I have been able to ascertain, Janet conceived the subconscious as having an awareness of its own, and really being a "second con-

sciousness." Somewhat later Morton Prince (5), building upon the work of Janet, defined a subconscious process as any process "of which the personality is unaware, which therefore is outside the personal consciousness, and which is a factor in the determination of conscious and bodily phenomena, or produces effects analogous to those which might be directly or indirectly produced by consciousness." For Prince, the *unconscious* was always to be taken as referring to the neural substratum or equivalent of the various subconscious processes (engrams or neural traces), whereas the term *co-conscious* was to be used to designate the corresponding psychological aspects, or more specifically was to be identified with the ideational aspects[11] of the subconscious processes. Prince is not always altogether clear about the exact nature of co-consciousness. It would appear that a co-conscious process is any psychological event or process such as makes up conscious psychological activity, minus an awareness factor. As the term "co-conscious" implies, such processes co-exist with identical processes of which we are aware. Prince emphasizes that insofar as co-conscious *processes* are concerned neither intelligence nor a "self" are necessarily found associated with them. However, *systems* of co-conscious activity can become organized and show intelligence as well as a "self." One can now speak of a "co-consciousness" which is perceived as a coexisting dissociated consciousness of which the "personal consciousness" is not aware, hence of which it is "unconscious." Out of such co-conscious or, more generally speaking, subconscious systems arise the so-called secondary personalities. It is not my intention to go into a detailed exposition of Prince's ideas here. If I may summarize the main points which are pertinent to the present problem, let me say that Prince, and Janet before him, found considerable evidence to support the idea that awareness was a quality which could or could not be a characteristic of otherwise identical psychological events, mainly ideas and thoughts. They found further evidence that sets of such events could co-exist, and that furthermore each could be highly organized and possess a "self," hence awareness, yet without necessarily being mutually aware of each other. Normally each individual is characterized by a dominant psychic structure or system which possesses awareness and has a *"personal self"* associated with it. Other similar systems may co-exist with it, hence be co-conscious. If they possess a "self," they are then described as secondary or co-conscious personalities. Actually, to be more specific, a co-conscious personality is one of which the primary personality is not aware, but which is aware of the latter, as well as of whatever experiences it is having at any moment. It may, however, not be aware of its thoughts. If it is, it is called an *intra-conscious* personality. Sometimes the different personality systems are mutually exclusive, so that only one at a time can have awareness. They then tend to alternate, hence their designation as "alternating personalities." Sometimes one only of the two alternating personalities has access to the memories of the other; and at other times neither has access to the memories of the other.

From the standpoint of analytic psychology, it is often said that the co-conscious and the pre-conscious are more or less the same. This may or may not be so. Prince did speak of the content of the fringe of consciousness as being part of the subconscious. Perhaps this is correct for co-conscious processes, but I doubt this is so in the

[11] As Prince stated it, the co-conscious is the totality at any instant of subconscious ideas and thoughts.

case of co-conscious personalities for the reason that they often exhibit clear evidence of themselves possessing the two triads: id-ego-superego, and unconscious - preconscious - conscious. One fact is quite clear: they are not to be identified with the system *Ucs.*

In the light of these various considerations it seems to me that the "unconscious" which manifests itself through such techniques as finger movements or a pendulum is very likely of the nature of Prince's *"co-conscious,"* and most likely of a secondary personality. The properties which are exhibited are far more those of such a psychological system than of the system *Ucs.* Of course we must expect that the latter will manifest itself through the former, and sometimes might do this to such a degree as to give the impression that we are dealing with it, but this is of quite a different order of things. Certainly the techniques which are used are essentially the kind that could be used to induce artificially a secondary personality. Whether we tell the subject "Your unconscious will move your finger" or we use some well-known technique for inducing artificial secondary personalities to which we can give such a name as "Joe," there seems to be little reason to expect that the agency moving the finger will be essentially different. While in the final analysis only some crucial experiments can decide whether under different conditions different psychic systems become involved, one may well expect that the techniques we have discussed will at times lead to secondary personalities answering to the label of "your unconscious" just as they would on some other occasion to the name of "Joe." It is my belief that, thus far, most of the instances I have witnessed of such productions of "unconscious" manifestations have most likely been of secondary personalities, or at least of co-conscious systems, the characteristics of which have been largely determined by (a) the subject's own conception of the "unconscious", and (b) the hypnotist's conception of the same. In addition, the very manner of bringing about this manifestation probably imposes certain characteristics specific to it. Thus, for instance the very wording of the request to the subject to "Let your unconscious . . . " imposes an unusual condition not to be found in natural occurrences of secondary personalities. For who is asked to do this? Obviously the conscious aspect of the hypnotized individual, which thereby is made instrumental in bringing about the "unconscious" manifestations. This is a feature well worth noting, because in cases of naturally occurring secondary personalities the latter are usually quite autonomous with respect to the primary personality, which has little to say about when and how it will manifest itself. Similarly as pointed out earlier, manifestations of the *system Ucs* are never controlled by the conscious. In addition the above instructions make it possible for the conscious part of the hypnotized individual to be aware of the activities of the "unconscious," which of course does not happen in instances of natural multiple personalities.

Finally there is a curious situation here which essentially makes the distinction between "unconscious" and "conscious" rather meaningless. This is best seen if one considers the case of two alternating personalities which are mutually amnesic. It is clear that whatever the dominant one does or experiences remains outside of the awareness of the other, and hence alternately each personality acts as an "unconscious" system for the other personality. This emphasizes the fact that one can speak of an "unconscious" only in reference to a "conscious," and that the extent and content of either one can be highly variable from moment to moment and even interchangeable.

I wish to make it clear once again that I am not denying that individuals show directly and indirectly evidence there is much that goes on within them of which they are not "aware," or that they may even be unaware of some of their overt behavior. Certainly I believe in the existence of the *system Ucs* and also in the existence of various forms of "co-consciousness" which too, from the standpoint of the "normal" conscious personality of the individual, can be said to represent "unconscious'" systems. In the present state of our knowledge it would be inaccurate to assume that the *Ucs* and the co-conscious are one and the same. If anything the evidence goes against this. From the standpoint of Prince's terminology one should perhaps speak of the "subconscious" consisting of (a) the unconscious (in Prince's sense), (b) the co-conscious, and (c) the *system Ucs*. And here I want to emphasize further the importance of keeping clear in one's mind the basic difference between neural traces and predispositions and their psychological manifestations. Furthermore, I would strongly recommend that one distinguish between reflexes and habitual acts and such acts which are performed without attention but which normally require it. Both types of behavior can be referred to as automatisms and both kinds can certainly take place outside of the individual's awareness, but it would be a mistake to suppose or assume that they are of essentially the same nature. Only in a broad, general sense can we speak of these as being part of the "unconscious." Actually what we really have is a class of many different kinds of "unconscious" systems, that is, systems the activities of which at a given instant lie outside of the individual's "awareness." Some of the members of this class may be identical with each other, but not with other members. Furthermore, I suspect that some of these members may really be in themselves subclasses which overlap to various degrees. It would be well to keep this in mind when thinking, talking about, and working with the so-called "unconscious."

And here may be as good a place as any to look at one other aspect of this question of what part of the individual one is communicating with when working with various hypnotic phenomena. More specifically, what aspect of the individual is it that carries out various suggestions in such situations as those in which *no* attempt has been made to bring forth "unconscious" productions. Here we have an individual who comes to us with a certain "conscious" system in operation. We hypnotize him. Is this same "conscious" still operating? One often has the impression that some sort of "dissociation" has taken place, but one not so much of the "conscious" as of the "ego"[12] which, as a system, is normally operative both in the conscious and in the unconscious. On the other hand, there are situations in which it looks more as if what has happened was that the ego had relinquished certain of its prerogatives, was refraining from carrying out certain of its functions, such as reality testing. In still other cases, one has very much the feeling of dealing with a co-conscious personality. As I suggested earlier, it may be that one is really working primarily with the preconscious of the subject. The nature of this paper is such that I can not take this matter up at greater length, but I do want to call the problem to the attention of those who are concerned with the entire question of using the "unconscious" in connection with hypnosis. Some very basic research is much needed here. There are many side problems that

[12] I am using such terms as ego, conscious, and unconscious largely in the psychoanalytical sense, but I want to emphasize that there are other models of the mind which allow one to draw up an analogous picture.

arise in this connection. For instance, those of us who have not been brought up in the tradition of the modern techniques for working with the "unconscious" will often suggest to the subject patient that he will work upon some given problem between sessions without being particularly aware of doing so. Sometimes we do not say this, but assume that this will take place of its own as a result, perhaps, of our having set the wheels in motion, so to speak, by initiating a trend of thoughts. Then, of course, there is also the question of "who" or what part of the individual's mind is involved in seeing to it that a post-hypnotic suggestion is carried out. We tell the individual he will do something at a certain time or on some occasion. "Who" receives the instructions? "Who" carries them out? Frankly I do not know. Perhaps the very nature of our instructions brings into existence a co-conscious system no different from the ones I have discussed earlier.

Perhaps the end result is the same whether or not we specify to the subject that a certain entity inhabiting his body will do the job or simply say that the job will be carried out.[13] Again, I do not think we ought to assume this is necessarily so until strong evidence can be obtained favoring one way or another of looking at this matter.

FURTHER COMMENTS

Before concluding I would like to take up briefly four rather important and related features. First is the matter of suggested dreams. Are hypnotic dreams identical with natural dreams? I doubt it. To begin, the very nature of the initiating agent is radically different. A natural dream may be initiated by external chance stimulation, by residues of the day's events, but largely by id impulses. The artificial dream is always initiated by an external conscious entity through the medium of suggestion. More often than not such "dreams" have much more the characteristics of a highly structured hallucination than of a dream. In any event, when such "dreams" do show the typical characteristics of the natural dream, I believe this is primarily because the therapist has allowed the artificial dream to be sufficiently unstructured as to provide a suitable medium for fairly unrestricted projection of unconscious material. At the same time, the very fact that the "dream" is being produced on demand by a hypnotized, but nevertheless essentially "conscious" mind, rather than by the spontaneous breakthrough of unconscious material into the conscious, raises some serious questions with regard to identity.

Again I would raise here the question of whether many dreams obtained through hypnotic suggestions might not be built more upon preconscious than unconscious material. To go further into this matter would take us beyond the scope of this article, and I must regretfully leave a more extentive discussion of it to some subsequent paper.

A second question related to the above matter is simply whether it is ever possible to obtain true *Ucs* productions through hypnosis. Past reports clearly demonstrate that this is possible, at least to a fair degree of approximation. The key to doing this successfully is simply that of using hypnosis to create a situation which favors the *spontaneous* manifestation of *Ucs* material. Here a fundamental rule: One can never tell the *Ucs* what to do, but at best one can create conditions favorable to its manifestation in certain directions. A careful examination of past investigations (4) in which *Ucs* manifestations have been successfully obtained always reveals

[13] I am mainly talking about the behavior of "deep" hypnotic subjects since in the case of "lighter" subjects a number of important complications usually show up.

the fact that no attempts were ever made to talk to and instruct directly the subject's unconscious as is done in the techniques described earlier. I do not mean to imply that *Ucs* material can not be and is never obtained by means of techniques which introduce more structuring, but the purest, least adulterated material of this kind is best obtained in a situation which approximates a free-association situation. Furthermore, with increasing structuring by the hypnotist there is the increasing danger that the responses which are elicited will be the artificial production of suggestions rather than a natural product of the *Ucs*. And I must emphasize here that this too is a difficulty which will be encountered with the productions of any kind of "unconscious." What it produces at any instant will be determined not only by the way it has been initially defined by the hypnotist's methods and instructions, but also by subsequent manipulations acting as suggestions.

This question of dreams brings up another matter, the relationship of *repression* to posthypnotic amnesia. It is commonly assumed that the two are essentially identical. This, I feel is a gratuitous assumption which ought to be examined much more carefully. Repression is essentially a defensive measure taken by the ego to ward off anxiety. This is an element seemingly altogether missing in the case of posthypnotic amnesia. Quite in contrast to repressed material, which tends spontaneously to intrude, to force its way into the conscious mind, this is not the case for material for which posthypnotic amnesia has been established. I believe much confusion has also been created here by the fact that one tends to confound behavior resulting from posthypnotic suggestions to behave or feel in a certain manner with the specific suggested effect to forget or be unable to remember. I think it is quite illuminating in this regard to observe an individual who, although fully aware and able to recollect a posthypnotic suggestion to do something, nevertheless rationalizes his behavior as he might were he not aware of the true cause. It is much more as if he were trying to deny the very fact that he was responding to a posthypnotic suggestion rather than make his behavior appear rational when he already has a perfectly good explanation. A further source of confounding here is, I believe, the subject's own unconscious reactions to being amnesic as well as to recognizing that he has been hypnotized. It is important to recognize the fact that being hypnotized is by no means a trivial experience for the individual, and for some it represents a deep intrusion into their private lives, far more sometimes than even they would expect. They will react to this with their total personality just as they would react to any other non-trivial situation, and in particular one may expect unconscious manifestations to appear in this connection. Here one ought also to consider the possibility that a true repression with regard to the posthypnotically induced amnesia may occur, a fact which will further complicate the interpretation of the results. Finally, I would like to propose that some posthypnotic amnesias are much more like *suppression* than repression, but it is a suppression that has its origins in an external ego rather than in the subject's own internal ego. In particular I would like to call attention here to the fact posthypnotic amnesia can always be lifted at the will of the hypnotist, just as suppression can always be lifted at the will of the individual's own ego. In contrast, repression can never be willfully removed by the individual's own ego, and when an external ego such as that of a therapist is instrumental in uncovering repressed material, this is rarely, if ever, the direct result of the latter willing the re-

pression away. These, then, are a few of the reasons why I am reluctant to identify repression and posthypnotic amnesia.

And now I come to one last point. Let us momentarily forget most of the things which have been said and concluded in the above pages. Let us also momentarily assume that one can contact or create, by means of the techniques described earlier, a psychic system which we can call the "unconscious." Finally let us assume, as seems to be usual, that this system is very wise and has all sorts of abilities and knowledge. I would like to propose here that no matter how perfect an instrument is, it can be only used as perfectly as the limitations of the user permit. No matter how wise the "unconscious" may be, in the end in order to get the proper answer, the proper question must first be asked. Not only must the right question be asked, but it must be asked in the proper manner, and in the end the answer must be interpreted properly. I wonder whether those who question and place so much faith upon the infallibility of the "unconscious" ever take into account their own fallibility. I would like to give an example from my own experience which points up this aspect rather clearly. Not long ago a lady on whom I had used hypnosis rather extensively asked me if I could help her locate some car keys she had lost. Ordinary hypnotic methods were unsuccessful, and I decided to enlist the help of her "unconscious." The latter asserted it knew where the keys were, and step by step, using finger movements, the keys were found to be in a certain drawer in a desk in the lady's living room. So said the "unconscious." When the subject got home she went to this drawer and sure enough found some car keys—but the wrong ones. These were old keys which she had discarded and forgotten about. She did not remember they were in that drawer. The other keys it eventually turned out had been lost in the street, were subsequently found by some passer-by, and returned to the owner about a year later. Curious about the whole thing I questioned the "unconscious" of my subject as to why it had answered me in terms of the wrong set of keys. The following information and explanation came out: (a) the "unconscious" had had no knowledge pertaining to where or when the loss of the keys sought had occurred, (b) it did know about the old keys and also knew that as far as the subject's conscious mind was concerned, they were lost; my questioning did not specify directly which set of keys I wanted information about—all I did was ask questions about a set of car keys that were lost in the sense that the subject's conscious mind did not remember where she had put them. And this was true. As I looked back, I had to admit that in so far as my questions had been concerned they could have applied equally well to the old or the not-so-old keys. Still, I was not fully satisfied with this answer, because even if I had not been specific, certainly the "unconscious" must have known, I reasoned, that I was not interested in the old keys. Why had it not told me it did not know the answer? The "unconscious" stuck to its position that my questions had not been of a nature such as to elicit any other answers than the ones it had given me, and this again I must admit was true. I had asked a question about lost keys, and the "unconscious" had given me an answer about lost keys which was fully adequate if one overlooked the context of my question. That is, the question was taken literally and answered literally. By then I had shifted from one-finger motions to automatic writing. I now raised repeatedly the question whether there might not be still another answer. The "unconscious" repeatedly denied this. In the best of modern "tradition"

I began to talk about letting the really deep part of the unconscious answer, and finally the "unconscious" agreed there was another answer. Of course I was aware that I was structuring the situation to such a degree that any answer I would get might or might not be valid. Having gotten the "unconscious" to admit there was another answer, there only remained to have it write it out. This, however, turned out to be impossible. The hand, which until then had written quite freely and legibly, simply froze. I asked the subject to tell me what was the matter. I received a verbal answer that "It wants to write but can't." And clearly the hand was trying to write and seemed to fight against some sort of impediment.

I think this account demonstrates rather nicely what happens when the experimenter or therapist is not wise enough to ask the right question or in the right way and, furthermore, is not wise enough to interpret the answer properly. I also think the above shows several other things. It shows a literalness and a lack of initiative on the part of the "unconscious," which is very remindful of the characteristics of a hypnotized individual. It also shows another very typical reaction of hypnotized individuals—to furnish the desired response as defined by the hypnotist at all cost, and if not possible, a reasonable substitute or compromise. The final result shows perhaps what happens when a substitute is not available, a paralysis, a contracture, etc., comes into being to solve the dilemma.[14] And here again, is a mechanism often seen in hypnotized individuals placed in a conflict situation. Whatever this "unconscious" was, its behavior was very remindful of that of a hypnotized conscious individual or of a co-conscious personality rather than that of an autonomous "unconscious."

Medical hypnotists are practical men. They use hypnosis in order to bring relief or a cure to their patients. Many who read this article will be prone to point out that they have obtained marvelous results using the techniques I have been discussing and that certainly no harm has resulted, so why worry? Some, perhaps many, will even ask whether their positive results do not actually invalidate my position. In any case many, I suspect, will conclude, "so what, I get results and that is what counts in the busy life of the practitioner."

In partial answer I would point out that from a pragmatic standpoint I agree. Certainly if the use of the "unconscious" as is currently done *consistently* leads to good results, one ought by all means to use it whether or not one has a clear understanding of the real underlying mechanism. Furthermore, if part of the effectiveness depends upon keeping the patient from knowing what this underlying mechanism is, and using the very mode of approach being employed, then by all means this should continue to be used. But just as a physician does not try to delude himself or his colleagues with regard to the true nature of a placebo or its probable mode of action, so no medical hypnotist ought to delude himself or others with regard to the way in which a hypnotic technique has brought about cures. If beneficial results come from creating a secondary personality in the form of "the unconscious," or even creating the belief in the patient's mind that some inner source of strength, his "unconscious," will be the means to his salvation, then by all means the practice ought to be continued, but those of us who are professional men ought to know the truth. And above all, the general acceptance

[14] I am reminded of an incident in which a subject faced with carrying out a post-hypnotic suggestion (of which he was aware) in a situation in which it was unthinkable to do so resolved the conflict by fainting.

of any special hypnotic technique in medical practice ought to be done on no different a basis than the general acceptance of a new drug, namely only after careful scientific study and testing.

Furthermore, the history of medicine and of science in general shows that in the long run the greatest benefits and the greatest advances come from a clear understanding of the nature of such processes and phenomena as are under consideration. Chewing the bark of *Cinchona succirubra* may give good medicinal results, but one could hardly question the far greater benefits which have been derived from some individuals taking the time to find out what property of the chewing or of the bark was responsible. Just what the "active ingredients" are in the therapeutic results obtained through the use of the "unconscious" remain to be determined. In fact one ought to examine very carefully the nature of these cures. How much and what kind of relief was obtained? What sort of cure was it? How permanent were the results? What possible undesirable side effects were there? What other kind of treatment was going on at the same time? Psychotherapy being what it is, it would be extremely important to determine what really effected the relief or cure. Could the entire procedure have acted as a kind of "placebo?" Even leaving this last possibility aside there are many other ways in which the technique could lead to beneficial effects. I am not at all certain that, for instance, in some cases a fantasied regression, rather than a real one, may not have just as good an influence. Perhaps the mere belief that the "unconscious" has been brought into the picture has a salutary effect on the patient, regardless of what this "unconscious" is or can really do. Then too, I must emphasize that I do not deny the possibility of obtaining *Ucs* material through the manifestations of the "unconscious." This was in fact the basis for my saying earlier that the "unconscious" appears to possess an "unconscious" of its own. If nothing else, the "unconscious" as being discussed here can act as an effective projective device for *Ucs* productions. Therapeutic results may also be brought about through the "unconscious" acting as a device by means of which the patient can work through various material in a preliminary fashion, that is, sort of "pre-digested" material which would otherwise not be in satisfactory shape to be turned over to the conscious.[15] Certainly there are many ways in which therapeutic results can be obtained, and by all means the method ought to be used, but we also ought to know better why it works.

In addition, I do not mean to minimize these concepts of the "unconscious" about which I have been writing. Quite apart from the above considerations they may be useful therapeutic adjuncts. They may well have or become endowed with certain abilities not available to the primary personality. In particular, their creation by the hypnotist may result in the creation of a sort of "guardian angel" for the patient. The history of multiple personalities shows that a secondary personality need not be inimical or just neutral with respect to the primary personality or a liability for it. It can also be helpful and an asset. I have frequently wondered when a medical hypnotist lets his patient know in one way or another that he need not fear hypnosis because his or her "unconscious" will not let harm come to them whether he may not be setting the stage right there for the creation of some sort of psychic protective system.

Perhaps the answer lies in quite a different direction. Perhaps it is the

[15] Perhaps what is really involved here is a progressive desensitization.

belief on the part of the physician in the efficacy of such a technique which allows him to get the necessary self-confidence to make effective use of hypnotic techniques. I suspect that the ability on the part of a hypnotist to believe implicitly in the "truth" and "reality" of what he is telling his subject may be a major factor in the determination of the results he obtains.

SUMMARY

The purpose of the present article has been an attempt to point out and elucidate certain basic ambiguities which exist in connection with the use of the term "unconscious" in current hypnotic practice. It has been pointed out that it is doubtful that this "unconscious" can be identified with the psychoanalytic unconscious. Its characteristics are such that it appears to be much more of the nature of Prince's co-conscious or of a secondary personality. Although such a psychic entity might conceivably be already present in an individual and brought into manifestation through the use of certain hypnotic techniques, it appears more likely that it is artificially created by the suggestions implicit in the techniques which are being used. In some instances it is also possible that "role-playing" rather than the appearance of an autonomous psychic system is involved. All in all the expression "unconscious" appears to be an ill chosen one to designate the phenomenon in question.

It has also been shown how in many instances the hypnotist in the process of questioning the subject's "unconscious" forces upon it his own preconceived ideas of what the answers should be. The recommendation is made that in order to obtain true unconscious manifestations the hypnotist should limit himself strictly to creating situations which favor the spontaneous manifestation of unconscious material.

The question is raised as to the hypnotist's ability to formulate the proper questions, word these correctly, and interpret correctly such answers as are obtained. The observation is made that the fallibility of the observer himself places definite limitations upon what can be done with the subject's "unconscious."

Finally, it is pointed out that it is not at all certain that such therapeutic results as have been obtained using the patient's "unconscious" were brought about by the activities of the "unconscious" *per se*. The need for careful study here is highly indicated.

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HYPNOSIS AND CHILD THERAPY[1]

by M. Erik Wright, Ph.D., M.D.

I. SOME PSYCHOLOGICAL CHARACTERISTICS OF CHILDREN IMPORTANT FOR TREATMENT PROGRAMS

There are many biological and ecological factors which may be as important for child therapy as the psychological factors, but the present paper will only concern itself with some psychological aspects of the young child which I believe are especially relevant for child hypnotherapy. The age range from 4 through 13 years will be included in the definition of child. It might be very meaningful to discuss some of the special characteristics and problems of children at each year level, but space limitations and the purposes of this paper are better served by the consideration of some general principles. In some ways the 13-year-old adolescent may have a far greater psychological overlap with the young adult than he has with the 4-year-old, yet there are important common psychological factors which warrant the inclusion of such a wide age range in the social-psychological concept of "child."

Basic to this community is the fact of rapid change and modification which is a fundamental part of the life pattern during childhood. Physiological and psychological maturity is associated with a decreased number of changes as well as a slower rate of change. The changes which occur after childhood generally tend to be less drastic in their impact upon behavior than were the effects of the rapid evolution of function and form characterizing the first decade and a half of life. In the following sections I would like to present some of the broad principles which I believe important for the understanding of child hypnotherapy.

A. *The Child as a Growing and Developing Organism*

One important characteristic of a vigorously growing organism, be it animal or plant, is that small persistent pressures acting upon the organism early in its life history may lead to changes which appear as major alterations or deviations in the more developed or mature organism. It is not difficult to bend a young sapling with a constant, sustained, even though weak, pressure so that the tree becomes distinctly altered in its adult posture. Yet the same or even greater pressure exerted on the more developed tree hardly influences its direction of growth.

The principle reflects the interest which those concerned with the growth and development of children have in the presence of persistent repetitive experiences in the life of the young child. There are many who are puzzled by the amount of emphasis given by child therapists to what appears to be the relatively minor problems which children experience. However, one should recognize that this designation of "minor" is made from the adult point of view. The adult already has acquired a variety of coping mechanisms which are quite capable of dealing with these "minor" difficulties. It may be far from a minor problem for the child who has a much more limited skill with and range of coping mechanisms. A "minor problem" may come to have important psychological impact, especially if there is frequent repetition. This principle of early mod-

[1] Presented at the second annual meeting of The American Society of Clinical Hypnosis, October 1959. Author's address: Departments of Psychology and Psychiatry, University of Kansas, Lawrence.

ifiability can be seen from its positive as well as from its negative consequences. The repeated security-developing operations which parents make towards their children contribute to the resiliency, strength, and self-direction which these children display later when on their own.

There are many psychobiological functions and structures which are not fully mature at birth but which become operative as the individual develops. Other structures and functions, vital at birth, often become less important or even completely atrophy as the organism grows and matures. The sucking reflex and the thymus gland play a far more important role in the early life economy than they do in later childhood. The gradual maturation of muscle, nerve, and endocrine systems leads, not only to alterations in body shape, size, and function but also serves to stimulate the psychological development of the individual as well as modify his response possibilities. The psychological functioning of the individual may in turn significantly influence some aspects of his somatic appearance and function.

A third aspect of a vigorously growing and developing organism is its capacity to recover from injury and to make adjustments to stress. These abilities tend to be greater during childhood than at any other period in life. Although this principle has some generality, there need to be qualifications as to the limits and conditions where it applies. Structurally, rapid regrowth of tissue following trauma, bone-healing, and recovery from illness in general tend to be much more rapid in the younger organism. Psychologically, the younger organism may be able to tolerate far greater environmental shifts than the adult can if certain fundamental conditioning exists. Witness the remarkable adjustment which displaced children made during World War II as long as they were permitted to maintain certain fundamental human relationships (2). Loss of material objects, status symbols, and vocational achievements, so important for the adult, do not encumber the child's adjustment.

B. *The Psychodynamically Less Differentiated Organism*

The younger child has a more limited life experience. His world offers him many more opportunities for new adventures, new understandings, and new feelings than it does his elders. He has strong motivations to explore his environment. It is not surprising therefore that the young individual is often far more open to new experiences than he will be as an adult. This flexibility is not all-pervasive, for even young children have some very rigid and fixed expectations about life. Generally, however, the less differentiated child does not have as many resistances to change and to new experiences as do his elders, for his ways of responding have not had the many repeated reinforcements to form rigid behavioral patterns. The urge to learn, to explore, and to enter into untried experiences are characteristics of a healthy growing organism.

A lesser cognitive differentiation implies that the child's interpretation of the world often differs significantly from that of the adult. The child has a more limited perspective of time. His awareness of the present is far greater than that of the past or future. Even the recent past tends to blend with fantasy and seem unreal, and his ability to understand and appreciate the future is limited by his judgment of time. The child's capacity to understand himself and others, to plan, anticipate, and to judge the future in terms of the past may not be sufficient to cope with many problems with which he is confronted. Thus, many problems become tremendously under- or overemphasized because of the limi-

tations of the young child's perceptual framework (3).

The less differentiated dynamic organization of the child may also be manifested in the apparent readier interaction between his world of fantasy, wish, and imagination with his world of reality. The vividness of this imagination coupled with a lower capacity to differentiate between what he wants to believe and what actually exists, seems to give this world of fantasy and dream a much more potent and direct influence on the child's life than it has for adult behavior. This is a positive force which enables the child to explore vicariously the rich treasures of play, reading, and observing others in order to build up the resources of his own experiences. He learns about the world and its ways not only from direct experience but also from the vicarious experiences which movies, books, and play fantasies provide. Less constructively, this same factor may create distortions in a child's behavior pattern. When a child is under constant stress, the fantasies and the dreams may be influenced more vigorously toward the pleasant and wish-fulfilling direction. Because of their close dynamic relationship with reality, this world of fantasy may come to usurp some of the satisfactions of reality and move the child away from dealing with reality.

The young child is not only less differentiated intellectually but his emotional responses are also less structured, less subtle, and less cleanly separated one from the other. Thus, the younger child tends to be more vigorous, overt, and explicit in his emotional expression than the older child or adolescent. His emotional responses are apt to be more labile and less readily associated with clear verbal description. This lack of symbolic clarity may be important for psychotherapeutic and hypnotherapeutic work with children. Feelings and reactions which cannot be readily coordinated with words are more difficult to describe, to make explicit, and to re-integrate into new perspectives with respect to their original circumstances as the individual grows older. They may more readily acquire pseudo- or quasi-symbolic value considerably divergent from the earlier conditions.

The psychodynamically less differentiated child has already established many broad behavior patterns, but the development of many specific ways of reacting is yet to come and to influence the formation of personality.

C. *Environmental Dependence and Control*

A third broad characteristic of childhood which may be important for almost all therapy is the degree to which children are dependent upon their environment. The young child is dependent upon adults for affection, physical well-being, stimulation, and protection. His capacity for independent judgment and action is circumscribed by his limited knowledge, experience, and awareness of social regulation but becomes enhanced and nurtured by the environmental guides which the parental adult world sets up for him. His perception of the world, of its opportunities and dangers, is strongly dependent upon and influenced by the perception which the significant adults in his world have of these same opportunities and dangers. Although the direct influence of adult views tends to decrease as the child grows older and takes over many of the physical and social controls placed upon the child's behavior by the parents, he has already previously been strongly influenced by the attitudes, beliefs, and emotional reactions of these adult persons, many of which he has already internalized. The very adults whom the child needs for his psychological and physical sustenance may thus become part of the problem which the child experiences.

Thus, the treatment of the child requires an understanding of and a relationship with the important adult figures (especially the parents) in his environment.

II. HYPNOTIC TECHNIQUES WITH CHILDREN

A. *General Responsiveness to Hypnosis*

General clinical experience amply confirms that young children readily go into hypnosis. The broad psychological characteristics which have been discussed provide us with some hypotheses as to the readiness with which children make this shift from immediate reality contact into a frame of reference where fantasy, imagery, and word symbols have greater potency. The readiness to set aside a self-critical attitude, trust in the basic safety and security which the adult world represents in the person of the operator, and a readier emotional mobilization may all contribute to the heightened facility which children have for entering into hypnosis. It has been the repeated experience of many therapists who are just learning to use hypnosis as a tool that work with children is a rewarding method of building up self-confidence in the operator in his acquisition of those skills which can help another person to enter into hypnosis.

B. *Child-Therapist Relationships*

We have stressed the importance of the child's conception of the adults' relationships to himself as part of the readiness to enter into the hypnotic state. It is possible for children who are extremely fearful and insecure about their relationships with adults to enter into hypnosis, but it does not occur as quickly and may require much more patience and persistence on the therapist's part to establish a working security base.

It is well for the therapist to approach the child as an individual and to regard him as such in spite of his smaller size, more limited intellectual capacities, and his circumscribed social status. To respond to the child as an individual and not as an object to be controlled can be a real asset to the operator. It may help him to do a better job of hypnotherapy if he is more sensitive to the needs and the rights of this individual and if he guides his technical maneuvers so that they are better accommodated to the particular child's personality. The induction of hypnosis, to be sure, is only a prelude to the psychotherapeutic or other therapeutic work to be done, yet it may significantly influence the effectiveness with which these therapeutic procedures are carried out.

The awareness of the child as an individual implies that the language which is used by the therapist must be meaningful to the child and must provide a real basis for communication between the adult and the child. Communication means talking *to* the child in a language which he can understand. It does not mean talking down to the child or using language which devaluates the child or implies condescension or patronization on the part of the therapist. The child must come to feel that he is important in the relationship with the therapist, if the latter's therapeutic goals are to be achieved. The process of establishing rapport with the child, of utilizing the child's positive attitudes towards parental figures in order to enhance this relationship, are all closely related to this regard for the child as an individual who has certain needs, attitudes, and potentials.

C. *Hypnotic Techniques*

It is not my intention to discuss the specific technical maneuvers which may be helpful in inducing, maintaining, and terminating hypnosis in the child. These maneuvers do not differ much from those used with adults. I would like to discuss certain broad gen-

eralizations relating to the use of hypnosis with children which are related to the previous section on psychological characteristics of childhood and which are important for the use of hypnotic techniques with children.

The more limited attention-span of the child requires a more sustained and continuous stimulation input. If we apply this principle to hypnotic techniques, we can be of greater help to the child if we use a technique which more continuously involves him, which keeps his fantasy more actively engaged. If this principle is applied to eye fixation technique, it would imply that the use of a moving light, a rotating object with light reflections, or a pendulum would tend to be more effective than a fixed immobile object. Another technique which has wide effectiveness is the television or movie screen. The child can turn on his imagined television set or sit back in a movie theater and watch the show that he has enjoyed in the past. Similarly, auditory fantasies or tactual fantasies may be invoked, but they should be imbedded in context of a story which is being heard, an object which is being handled, or something which has some duration.

A second principle is that the child must have some form of immediate reward for his energy and work output. It is only later, as the individual gets older, that he can adjust to the experience of temporary discomfort in order to achieve future pleasure or relief. Many psychologists believe that when this fails to develop in an adult, there then exists a serious disruption of the efficient psychological functioning of this adult (i.e., if he has not mastered the problem of suspending immediate gratification, or sustaining discomfort in order to achieve future well-being, then his capacity for mature judgment is impaired).

A third aspect of the child-therapist relationship which is important for the induction procedure is that the operator must convey to the child his appreciation of the child's efforts. He must be careful not to overwhelm the child or become threatening to him by virtue of the operator's superior strength in both the physical and the psychological spheres. Within a framework of appreciation and cautious use of his greater abilities, however, the therapist must still provide the positive guidance and direction to the child which the child has come to expect from his relationship with the adult world and to which he is entitled by virtue of his being in a treatment relationship with the therapist.

A fourth principle is that self-suggestion is the essential use of suggestion in hypnotherapy. The suggestions which are made by the therapist to the child become therapeutic only when the child has made these suggestions a part of his own thinking, experience, and feeling. This does not differ from the role of suggestion with the adult; it only restates with emphasis a basic principle in the use of suggestions. Thus, when there is some action or idea which the therapist is interested in having the child achieve, he must take cognizance of the imagery and language capabilities of the child so that he can utilize the child's experiences as a basis for the suggestion and present it in such a way that the child can make it part of himself by understanding it first.

Finally, the child has to be kept informed of the intended action which the therapist is going to make. This not only helps maintain the hypnotic state and the psychological rapport between child and therapist, but it also gives the child an opportunity to formulate either at a conscious or a subconscious level a pattern of reaction which is in the direction of the therapeutic goal. Being startled into action or response by the unexpected on the part of the therapist may leave the

child with fewer alternatives. He might either come out of the hypnotic state, withdraw from contact with the therapist by going from hypnotic state into sleep, or else responding, in a way, to the effect of his own startle reaction rather than to the therapeutic intent of the operator's act.

The general pattern of the induction of hypnosis in the child is similar to that with the adult except that the problem is much simpler. The child is made comfortable in a setting in which outside distractions (e.g., lights, sounds, kinesthetic sensations, orders, etc.) are kept to a reasonable minimum, and then the fantasy life of the child is appealed to. Often the therapist may precede his induction with a demonstration to the child of what relaxation and looseness of muscle and decrease of tension may mean. He may take the child's wrist and arm, raise it gently, and show the child how it can fall in a relaxed manner without any tensions. After a few trials, he can then proceed from the meaning of a loose, limp, relaxed, comfortable feeling in the arm to his induction procedure. Thus, he may say to the child that his eyelids will become very loose, relaxed, heavy, and that he will feel sleepy, and that as his eyes close he will be able in just a little while to see himself in a comfortable chair before a television screen or a movie screen or whatever other technique is going to be used. Timing his remarks to coincide with the beginning behavior of the child, he may then proceed with the induction to the point where the child is able to give clear indication that he has entered into the hypnotic state (e.g., arm levitation, catalepsy, eyelid fluttering, etc.).

The deepening techniques which are common to most inductions can be used here (e.g., counting down while the individual rides down an escalator, emphasis on the sleepiness aspect, and the elicitation of other behavioral phenomena which presumably are associated with deeper states). The therapeutic work which has to be done may be in terms of releasing tension, reassurance, abreaction, emotional cathexis, positive re-education in new experiences, age regression to reactivate old experiences, and the whole variety of reorientations of perception and experience which may occur under hypnosis. The awakening from the hypnotic state follows the typical patterns. There is great merit in setting up a post-hypnotic suggestion for autohypnosis or rapid re-entry into hypnosis as a standard part of the hypnotic procedure.

III. SOME APPLICATIONS TO CHILD THERAPY

A. *Surgical Applications*

The use of chemical anesthesia is frequently associated with a phase of agitation and excitement in the child which may be of shorter or longer duration. This excitatory phase of the anesthetic induction procedure may give rise to laryngospasm, hiccuping or other untoward reactions which may interfere with the anesthesia or the therapeutic procedure. It is believed by many anesthetists that some of this behavior may be associated with the child's fear of the procedure, especially when a gaseous inhalant is used. The role of the hypnotic procedures may be either to relax the child and give him a sense of confidence in this situation, or to significantly alter the total experience and perception of pain so that procedures can be carried out with minimal or limited use of chemical anesthetics. Not only may the induction procedure be made smoother with the chemical anesthetic, but the child's post-operative course can be ameliorated and made a much happier experience. The presurgical suggestion of appetite and well-being which will be present in the post-hypnotic situation, the relaxation of bowel and bladder which will facilitate micturition and defecation, the post-anesthetic analge-

sia which may decrease the child's need for heavy sedation with its frequent effect upon gastro-intestinal motility, are all possible utilizations of the general phenomena which can be elicited under hypnosis. The decrease of pain, the alteration of appetite, the reorientation of the attitudes towards the surgery and the hospital situation, the support for the expectancy to survive and to be well, the maintenance of home-hospital relationships through the use of fantasied bridging of the two under hypnosis, the helping the child to sustain positive attitudes, are all psychological factors which can influence the child's pre- and post-surgical course (4).

In the treatment of orthopedic problems (e.g., poliomyelitis, fractures, etc.) hypnosis can be used as a motivating device as well as a means of controlling the feedback of pain. The loss of interest and the feeling of frustration associated with chronic and long-term illnesses can often be dealt with by means of time projections, in which the child is able to fantasy his re-utilization of muscle and limb. The work of Crasilneck and others (1) in the treatment of burns and the rehabilitation problems associated with skin grafts has demonstrated the utility of hypnosis as a therapeutic tool in these areas.

B. *Medical Applications*

The medical applications are not limited to those problems which it has become common to call psychosomatic, with the inference that the psychogenic components which either predispose to, maintain, or trigger off the disease process are the only ones of importance. It is our belief that any illness which requires a child to alter his characteristic relations with other children, to limit the activity possibilities of his environment or of his associates, or which modifies his way of life for any length of time, has psychological consequences which must be dealt with, even though the illness itself may not have been initiated, maintained, or triggered off by psychic factors. Children with cerebral palsy, diabetes, anemia, heart disease, etc., have many problems which are amenable to, and could benefit by, some measure of psychological treatment. Hypnosis and hypnotic techniques can be used with these children for maintenance of motivation and to help overcome some of the anxiety and fear created by the acute phases of their illness. This anxiety frequently spills over into the convalescent and rehabilitation phase of the illness, and its persistence may tend to limit the child's activities far more than the physical condition warrants. In addition to these illnesses, the medical therapist is called on to help children adjust to a variety of disabling conditions usually associated with constitutional or genetic factors (e.g., harelip, small size, obesity, gynecomastia in adolescent boys, etc.) that are very important for the social-psychological adjustment behavior of these children. Such somatopsychological problems can often be significantly helped by the use of hypnotic techniques.

There is the broad area of psychosomatic problems, i.e., medical problems where the evidence seems to support the role of psychological factors in predisposing, maintaining, or precipitating disturbances in total body functioning, e.g., childhood asthma, enuresis, allergy, gastrointestinal dysfunction, etc. In these conditions (and this listing is a sampling, not a compendium, of such conditions), regardless of the ultimate etiological determination, it is clear that sustained stress or anxiety on the part of the child may either precipitate or aggravate an episode of the illness. Recurrent attacks or episodes of such an illness tend to become more severe, because the attack itself seems to create greater

anxiety and stress within the child as well as within the environmental setting (e.g., parents' reaction to enuresis), especially as the feedback damages the parent-child relationship.

The non-specific aspects of stress which arise from anxiety and fear may mobilize body defense reactions to such a point that the very operation of protection may become a problem to the organism (6). Probably because of genetic or constitutional factors, certain kinds of body function-systems tend to be more susceptible than others in the individual case, and an aggravated ectodermal, mesodermal, or endodermal responsiveness to irritation may exist. The additional irritation arising out of continued stress may lead to nervous system irritability (idiopathic epilepsy, muscle-spasm phenomena, asthma, hypermotility of the bowel) or secretory dysfunction (hyperthyroidism, diabetes) to become manifest as a symptom. The function of hypnotherapeutic psychotherapy is to moderate, alleviate, or eliminate the manifestations and even the etiological bases for some of this anxiety and fear which leads to the sustained stress. The organism may be helped towards restoration of a more homeostatic condition which in turn permits the gradual decrease of the need for defensive operations against stress.

It must be re-emphasized that a therapeutic program designed to decrease the level of fear, anxiety, and stress within a child has to include the parents or parental figures. Indeed, the central therapeutic effort may have to focus on their anxiety and fear rather than upon the child. The induced state within the child often responds dramatically and rapidly to a reduction of the parents' level of fear and tension.

C. *Psychological Problems*

The psychological problems that occur at different ages reflect the relative status of the coping mechanisms of the child (5). Thus, the psychological manifestation in the first two years of life may be oriented around the acquisition of the basic skills of physical and social self-maintenance such as eating, bladder control, sleeping, peer relationships, communication, and resting. As the child gets older, the problem that arises may either be a continuation of these basic drive problems or may develop as a result of stress in the environment which leads to fear and interference with the acquisition or expression of the social personal demands of the middle years. Since the requirements of the period from five to twelve years of age have to do with acquisition of learning, social skills, interpersonal relationships, and motor acquisition of skills, the problem may be expressed in any one of these areas as either retardation, distortion, or over-emphasis on a single area. There may be phobic reactions, regression to infantile patterns, discrepancies in skill achievement, or the more severe types of neurotic or psychotic disruptions of organizations.

The contributions of hypnotic techniques in the psychotherapeutic approach to the moderate to severe psychological disturbance can be roughly separated into three broad categories. First is the direct and immediate alleviation of some of the tension and stress through the induction and maintenance of the hypnotic state per se. Not to be underestimated is the self-perpetuating quality which stress, fear, and anxiety tend to have upon a child whose future time-perspective cannot readily embrace the possibility of change and is thus much more exposed to the anticipation of the return of certain kinds of fearful experiences. The second broad contribution which hypnotic techniques can make to child therapy is in the realm of clarifying the background and basis for the present and past fears as well as for dif-

ferentiating the psychogenic components from other components which may be related to the current problems of the child. The third major contribution of hypnosis is to the re-educative or rehabilitative aspect of the psychological problem. In this phase the child may be helped to experience new ways of coping with problems with the guiding suggestions offered by the therapist. He may venture into previously threatening areas and with the support of the therapist in these areas have re-educative experiences (e.g., by means of age progression), so that a restoration of his confidence and his ability to control events starts its development under hypnosis. A wider and more effective scope of therapeutic techniques often becomes available under hypnosis than with other psychotherapeutic techniques. The great savings in time, emotional energy, and aggravation of difficulties must be appreciated.

It is worthwhile to stress that sometimes hypnotic techniques may be used as a brief therapy pilot procedure to see how rapidly the child can respond before a decision is made as to whether the problem is one requiring more specialized help. Thus, the therapist may find himself developing greater skill at differentiating those children who can be rapidly and readily helped by the skills he feels qualified to use from those who may need referral to facilities and persons who are better equipped to deal with the more complex and long-range problems.

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THE INDUCTION OF CLINICAL ANXIETY BY MEANS OF A STANDARDIZED HYPNOTIC TECHNIQUE[1]

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A common method of studying psychopathology and its correlates is to contrast groups of psychiatric patients and normal persons. The groups are usually small; a hundred is a substantial number in such a study. The possibility of sampling bias is hence always clearly present. We are often unsure whether obtained inter-sample differences are due to psychopathology in one of the groups, or to the simple fact that two different groups of individuals were examined.

Hypnosis offers a potential medium for circumventing this methodological difficulty. By means of hypnotic suggestion it is apparently possible to transform temporarily a normal individual into one with psychopathological symptoms. This presents a unique opportunity to conduct "before-after" experimental studies of psychopathology. It is true that the approach has certain limitations, but a great deal of revealing research is nonetheless possible.

Routine scientific caution dictates that careful attention must be given to the nature of the stimulus for inducing the psychopathological symptoms. The primary factor of concern is the efficacy of the stimulus to produce the desired end. Unfortunately, it is difficult to assess empirically the relative effectiveness of stimuli whose use has already been reported in the literature. There have been too few studies, too few subjects, too little replication, and too much diversity among criterion measures of effectiveness. Some report only clinical or other unsystematic data which cannot be used evaluatively.

This leaves only logical analysis as a basis for discriminating among the various techniques. While such analysis cannot replace empirical investigation, it can often cast limited light on a subject and is useful if one keeps its limitations in mind.

The techniques which have been used appear to vary principally along two dimensions: complexity of the stimulus suggestion, and personalness of the content. The range of complexity runs from the single-word technique used first by Gidro-Frank and Bull (4) and recently by Eichhorn and Traktir (2), through the modest paragraphs employed by Sweetland (9) and by Levine, Grassi and Gerson (7), to the elaborate, thousand-word story approach of Erickson (3).

At one end of the personalness of content dimension is the Erickson technique (3), in which the story stimulus is formulated following intimate knowledge of the individual's personality dynamics based on many hours of psychotherapy and utilizing symbolic cues. Next are the suggestions used by True and Stephenson (11), which were based on a "rather complete personal history." (Unfortunately, these stimuli are not otherwise described.) The technique used by Counts and Mensh (1) to elicit hostility was per-

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[1] A paper read at the Annual Scientific Assembly of The American Society of Clinical Hypnosis, October 1959.

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sonal in the sense of suggesting specific previous interaction between the subject and the experimenter, but it had no anamnestic aspect. The identical suggestion was used for each of the five subjects.

At the opposite end of the personalness dimension are the one-word technique of Gidro-Frank and Bull (4) and the paragraphs used by Sweetland (9). In the former, the suggestion is simply the single word, "fear," "joy," "anger," etc., while the latter is essentially based on a psychiatry textbook description of the symptoms of a psychopathological state. For instance, to induce depression, the suggestion goes, "You will have a pronounced feeling of sadness, discouragement, and futility . . . you will want to be left alone," etc.

The need for standardizing stimuli used in hypnosis experiments was carefully pointed out over 25 years ago by Hull in his classic volume (6). The need exists so long as there is no clear-cut, objective, fool-proof method of assessing the effects of a stimulus. For example, if we had a one-hundred-percent method of measuring anxiety, then the nature of the stimulus or stimuli used in inducing anxiety experimentally would usually be immaterial. But as yet our knowledge is limited, and our measuring instruments are relatively crude. We can rarely be certain to what extent the subject's behavior is a function of anxiety or of specific, non-anxiety-inducing aspects of a personalized stimulus. Perhaps the subject's responses are behavioral manifestations of anxiety, or perhaps they are his particular, personal responses to a particular situation. The net result of the use of many personal stimuli in a group of subjects is that the findings based on the group are invariably equivocal and confused.

The standards of a scientific experiment require that abstract concepts like emotional states be defined in the same way for all subjects if we are to draw any conclusions concerning those abstract concepts. Even if this were not true, the anamnestically-determined, personal stimulus has another potential weakness, as Gidro-Frank and Bull (4) have implied. Many emotional states, especially psychopathological ones, do not seem to occur in a "pure" state. We find instead admixtures of anxiety and depression, or of elation and hostility, or of anxiety and hostility, and so forth. This suggests that specific stimulus situations are apt to produce such admixtures. Our own preliminary work seems to confirm this. Purity of the subject matter is a desirable state for laboratory investigation.

The one-word technique is an example of a standard stimulus for the evoking of an hypnotically-induced emotional state. It has the advantages, as Gidro-Frank and Bull (4) point out, of simplicity and ease of repetition in addition to isolation of the state in a "pure" form. However, it has one salient shortcoming, a shortcoming so significant that it practically precludes the use of the technique. Surprisingly enough, Gidro-Frank and Bull themselves pointed it out: "The fact that there is a semantic problem should not be overlooked. Thus different people may attach different meanings to the name of an emotion. There are probably no two individuals to whom 'anger' means exactly the same thing" (4, p. 94).

Speaking loosely, a desired reaction may be induced in one person by the word "anger," in another by "irritation," in a third by "hostility," and so forth. The use of any single word with a particular subject may hence fall short of the primary purpose of the stimulus, which is to induce an emotional state. The need for standardization should not cause the experimenter to lose sight of his experimen-

tal goal, which is to induce an emotional state.

Obviously then, the stimulus suggestion must contain a number of synonymous expressions for the desired emotional state. The stimulus for inducing depression used by Levine, Grassi and Gerson (7) contained three synonyms: sad, blue, and low in spirits. Each is repeated three times. Sweetland's (9) suggestion for depression, which is essentially a symptom-description, contains 14 expressions relating to depression, including four synonyms for depression. However, the use of symptom-description *per se* is not desirable if the intention of the experimenter is to measure effects by verbal means. If it is suggested to the subject that he feels worthless, and an item in an adjustment inventory or similar device then asks if he feels worthless, the affirmative response is hardly surprising no matter how the subject really feels.

Clinical study suggests that there is often a time lag between the delivery of a suggestion and the appropriate reaction of the subject. It takes time for the subject to conceptualize the suggestion and the nature of the feelings or thoughts or behavior which he ought to develop. This is most true of suggested emotional states. This seems to indicate that the stimulus suggestion should not be too long or complex. While the subject is conceptualizing his response to the early part of the suggestion, he may miss the latter part. Or, he may not be able to react to the early part because of his attention to the latter part. In either instance, some part of the suggestion may be lost, or the subject may become confused about what is wanted of him.

Repetition and paraphrasing of key words and expressions would appear to offer assistance to the subject in conceptualization, just as it ordinarily does when sheer intellectual grasp of meaning is the goal. It has already been noted that this approach is also designed to circumvent the problem of differential interpretation of the key stimulus word among a group of subjects.

Finally, previous work suggests that best results are obtained when the hypnotic stimulus-suggestion has no content which implies or informs the subject that the experimental situation is artificial. Statements that the subject is in an experiment or a laboratory, or that he is to take some tests, or that the situation is temporary, are contraindicated.

In summary, logical analysis leads to the following conclusions concerning the characteristics of the most effective hypnotic suggestion for the induction of an emotional state.

1. Content should not be personal nor based on anamnesis.
2. The suggestion should not be lengthy, possibly no longer than about two minutes.
3. A number of synonyms for the emotional state should be used.
4. Key words and expressions should be repeated and/or paraphrased.
5. Nothing in the stimulus should lead the subject to believe that he is in an artificial situation.

Beginning with these considerations, we formulated the following suggestion stimulus for inducing clinical anxiety in normal individuals for experimental purposes. It contains 260 words including the words "anxiety," "fear," "dread," "apprehension," and "panic." The words "anxiety" and "anxious" appear five times, "fear" and "fearful" six times, "dread" and "dreadful" six times, "afraid" three times, and "apprehension" and "panic" once each.

The exact text was recorded on tape in order to keep the tonal quality as well as the verbal content constant. The tape was then played at the appropriate time for each subject. This is the text of the suggestion:

In a moment you will begin to experience a feeling of anxiety, of fear. (Pause, 5 seconds.) You are now becoming afraid, very afraid. You are experiencing a strong feeling of apprehension and anxiety, as if you knew that some dreadful thing was going to happen to you. But you do not know what this awful thing is. You do not know what makes you so fearful and anxious. This emotion of fear becomes stronger and stronger every moment. You are experiencing it so vividly and strongly that you feel it throughout your entire body, with every fiber of yourself. You are becoming more and more anxious and afraid all the time, yet you have no idea what you are afraid of. You are certain that some dreadful thing is going to happen to you, perhaps something more horrible than you can possibly imagine. Your feeling of dread and fear increases with each passing second, and it will continue to increase, no matter what you try to do to stop it. You are so obsessed by this terrible fear that you cannot get it off your mind even for a moment. All that you can think of is that some dreadful thing is going to happen to you, and you are helpless to prevent it from happening. The dread is so unbearable that you cannot conceal it. No matter what you do, your feeling of fear, of anxiety, of dread, will continue to become stronger and more vivid every moment. In a very few minutes, you will find yourself on the verge of panic.

Preliminary work with an earlier form of the stimulus indicated that it could induce anxiety as measured by increased concentration of plasma hydrocortisone (8), an adrenal hormone associated with stress reactions, and by two psychological tests (5).

The effectiveness of the revised anxiety stimulus-suggestion was tested on 16 student nurse volunteers between the ages of 18 and 22. Three of the subjects were carry-overs from an earlier experiment. The method of selection of the remaining 13 subjects may be worth noting briefly.

There were originally 35 volunteers. These were seen in groups of six. A short lecture on the nature of hypnosis and on the ethics of behavioral science research was given. The room was then darkened, the subjects were told to close their eyes, and a ten-minute hypnotic induction tape recording was played. At the end of that period, a suggestion of eyelid catalepsy was given. The subjects responding negatively were discarded.

Of the 35 volunteers, 19 were acceptable on this basis. The subgroups of six were amazingly consistent in the proportion of acceptable subjects furnished. Five of the subgroups provided three subjects, and one provided four.

A period of one to four hours was spent with each subject individually in an effort to develop hypnotically induced amnesia. Three subjects failed to develop amnesia, and three others dropped out of the study, two of these because of illness. The remaining 13 subjects, plus the three carry-overs, constituted the present sample.

Subjects were individually subjected to the experimental situation. The experimental procedure was as follows. After being hypnotized, the subject was given a special ten-minute relaxation period. The Manifest Anxiety Scale (MAS), the Adjective Check List (ACL) and cards 11 and 19 of the Thematic Apperception Test (TAT) were administered in that order. Blood pressure and pulse were then checked, and a blood sample was collected. Following this, the subject was made amnesic for the entire procedure up to that point. A clinical rating of anxiety for this period was made by the psychiatrist (den Breeijen) on a six-point scale.

The anxiety-stimulus tape was then played, and blood pressure and pulse were then checked. After this, the entire pre-anxiety procedure was repeated. Clinical ratings of anxiety for this post-stimulus period were made by the psychiatrist (den Breeijen) and the psychologist (Levitt). The correlation between ratings as an index of reliability was .90. The measure which appears as the clinical rating in Table 1 was the average for the two raters.

TABLE 1
A COMPARISON OF MEAN SCORES ON PSYCHOLOGICAL VARIABLES FOR THE HYPNOSIS AND HYPNOTIC ANXIETY STATES

Variable	Hypnosis	Anxiety	*t*-test
Clinical Anxiety Rating	0.0	1.9	7.47**
Manifest Anxiety Scale	11.9	20.2	3.20*
Adjective Check List	4.4	17.5	10.10**

*$p < .01$
**$p < .001$

TABLE 2
A COMPARISON OF MEAN SCORES ON PHYSIOLOGICAL VARIABLES FOR THE HYPNOSIS, HYPNOTIC ANXIETY, AND POST-HYPNOTIC STATES

Variable	Hypnosis	Anxiety I	Anxiety II	Post-Hypnosis	*F*-test
Systolic blood pressure	118.5	113.5	112.4	117.9	4.58*
Diastolic blood pressure	73.8	71.6	68.5	81.2	12.50**
Pulse rate	75.9	81.7	71.7	73.4	8.99**
Plasma hydrocortisone#	16.6	——	17.5	——	0.60

*$p < .01$
**$p < .001$
#data for only 13 subjects

The anxiety was then alleviated, and the subject was again made amnesic for the experimental procedure. After a ten-minute relaxation period, blood pressure and pulse were given a final check, and the subject was awakened.

The data for the psychological measures are summarized in Table 1 and for the physiological measures in Table 2. Of the seven measures, only the plasma hydrocortisone fails to show a significant change from the hypnosis (pre-anxiety) baseline to the hypnotically-induced anxiety state. The clinical anxiety rating, the MAS and the ACL show sharp increases with anxiety. The ACL[5] consisted of 12 "anxiety-plus" adjectives, like afraid, nervous, shaky, etc., and 12 "anxiety-minus" adjectives like calm, contented, secure, etc. The subject checked those which apply to her, and her score was the number of anxiety-plus words checked plus the number of anxiety-minus words *not* checked.

These words were taken from a larger group on the basis of their ability to differentiate significantly normal individuals from patients in severe anxiety states. Of the 24 adjectives, 21 significantly differentiated the hypnotic state from the hypnotically-induced anxiety state in our study. This is, perhaps, one of the most dramatic illustrations of the degree of correspondence between hypnotically-induced anxiety and actual psychopathological anxiety.

Significant decreases in blood pressure and irregular variations in pulse rate with anxiety are illustrated in Table 2. Both measurements were obtained in the ordinary clinical fashion,

[5] The authors are indebted to Dr. Marvin Zuckerman of the Institute of Psychiatric Research, Indiana University Medical Center, for his key role in the development of the ACL.

and the double-blind technique was not used. In fact, it could not be used for a number of reasons, not the least of which was that the behavioral manifestations of anxiety were so evident in all subjects that the examiner could hardly avoid being aware of them. Nevertheless, we must allow that a subjective element was present in these measurements, and some bias could conceivably have canted the results. It is also true that a change of 5 or 6 mm. of mercury does not appear to have much real physiological significance. However, it should be noted that the blood pressure readings were taken several minutes after the induction of anxiety. A continuous recording might have revealed some more drastic changes, either part way through the playing of the stimulus tape, or immediately thereafter. It should also be noted that the original purpose of the blood pressure and pulse measurements was concern for the welfare of the subject, not the validation of the anxiety-inducing technique.

The absence of a significant difference in the hydrocortisone levels is unexpected in view of our earlier study (8). A possible explanation lies in the elevated levels in the pre-anxiety state. Data which we are now analyzing appear to indicate that the amount of increase in the hydrocortisone level with stress is negatively related to the pre-stress level. In our earlier work, the pre-anxiety mean level was 12.5 micrograms percent, while in the present experiment it was 16.6 micrograms percent. Of seven subjects in the present study whose initial level was below the mean, five showed an increased level in anxiety. Of the six initially above the mean, only one increased. The difference in proportions is very near statistical significance, attaining an exact probability level of occurrence by chance of .07. This, therefore, appears to be a plausible explanation of the inter-study differences. There are several possible explanations for the initially elevated levels, but there is no profit in discussing them at this point.

The instructions for the administration of the TAT require the subject to make up a story about the card stimulus. Various systems of content scoring of TAT responses have been devised, depending upon the investigator's purpose. In our study, we did not feel that *any* analysis was necessary for our purposes.

The stories related by all subjects under the influence of the anxiety suggestion are dramatically and unmistakably different from those of the pre-anxiety state. Below are a few typical comparisons. The phobic quality of the productions under anxiety is too evident to warrant quantitative analysis.

Subject BE

CARD 11

Hypnosis

Looks like a deep canyon with a kind of stone walk and at the end of it are—the end of the stone walk—are some animals, it looks like, and a man. The animals look like they're eating, and the man's just standing there with them. These animals are down at the end of this pathway, sort of, and they're eating, it looks like. The man's standing by a great, big, sheer drop. Right next to them is a bridge over something or another, an arched bridge. There are lots of boulders and stuff around. Looks

Anxiety

Looks like a big, deep hole. There's a great big animal leaning down in it ready to eat somebody up, and then there is a whole bunch of other animals — they're running around and fighting and all around there's great, big, deep, long cliffs to fall off of and big rocks — they look like they're about ready to fall down.

like they had a landslide. Otherwise, very sheer walls. I can't think of what this one thing is—looks like the head of an animal sticking out there.

Subject BE

CARD 19

Hypnosis

Looks like a basement house with two windows showing and a chimney sticking out of the roof with snow covering all the way around. You can see into the house a little bit. Objects are not very clear. Looks like they're kind of having a blizzard or something—it seems like the snow is blowing all around—drifting. Kind of weird like. Maybe there are a lot of spirits in the air overshadowing the house—watching over it.

Anxiety

There are all kinds of fingers going down into—reaching down—and there's a great big witch behind—black witch—her arms are reaching out like she's going to get somebody and another funny-looking creature with great big eyes. They're all looming over this kind of a hut with windows and a chimney. The wind's blowing and the snow is drifting, and everything is real weird, like everybody was out to get you.

Subject BA

CARD 11

Hypnosis

Oh—it looks to me like—I would imagine that if I were making up a story about it, it would be in Colorado or in one of the states in that area and there's this small—well, of course it's in a mountainous area and this is just space here and this is kind of a ledge of rocks. Just pretend like we were on a trip or something—a scenic trip—and we saw a group of people over here. From the looks of things they're struggling, and since that deep space there is present, we want to go over to stop them before one of them falls. So our plan of action is to cross the bridge—ledge of rock—and see what is up and stop it. That's all.

Anxiety

Well, there are a lot of rocks around—probably in some mountains. There's some sort of web-footed animal at the left hand corner, kind of like you'd see in a movie about prehistoric monsters or something. There's some animals fighting, because it looks like it's a great big—oh—just a dropping off place, and this other animal sees them, and he's in a position where he can jump right down and knock them over. Either that or it looks like it's coming out of a hole in a cave in a side of a mountain, I guess, and it's watching those animals. It could probably either knock them over or kill them some other way but there's no way for them to escape because there's no—it doesn't look like there's any other way to get past the animal. I guess there's nothing they can do for them. They're just going to have to wait for it. That's all.

Subject AD

CARD 11

Hypnosis

Going for a walk up in the mountains, and it's a nice, warm day outside. There's trees all around and dense undergrowth, and you see all kinds of interesting things. You come upon a place which used to be a little village or something. There's a wall there. You see birds or something sitting on top of the wall. That's about all. (Chuckle.)

Anxiety

There's a torrent of water coming down, and it's spraying up and there's a hole—there's a great big wall with a hole in it and some kind of monster sticking its foot and head out. There are all kinds of rocks around. It's kind of dark out.

Subject AD

CARD 19

Hypnosis

Having a childhood dream and imagination's carrying it away. You see a little old house, and there's a chimney—it has two windows. Inside are all kinds of toys and things and little tin soldiers and some other things, and she's kind of up in the clouds. There's everything you ever imagined there. There are, oh, ghosts and goblins and stockings with toys in them. It's probably made of candy (the house).

Anxiety

This is a nightmare and all kinds of weird forms around. There's a witch with two great big eyes. She's floating in a sea with waves coming up. Looks kind of like a submarine there, half-submerged, and there's a weird form shooting down from the sky in dark colors.

Subject SI

CARD 19

Hypnosis

Reminds me of Alaska. This is an igloo. The igloo's got curtains; that's different. It looks like Old Man Winter in the back with eyes. You can't see inside the igloo, but I presume there's people in there—smoke is coming out of the chimney. I don't see very much in that one.

Anxiety

It looks like a submarine coming up. (Can you hear me?) I said there's a submarine, and it looks like there's a ghost in the background, and it's a terrible storm. They don't know where they're coming up at; it's just in an icy place. Terrible black cloud back here—tornado—waves.

SUMMARY

Techniques employed by other investigators for the experimental production of an emotional state by means of hypnotic induction are described. On the basis of a logical analysis of these methods, an hypnotic suggestion for the production of an anxiety state was devised. The effects of such a suggestion were gauged by four psychological indices: the Manifest Anxiety Scale, an Adjective Check List, cards 11 and 19 of the Thematic Apperception Test, and a clinical anxiety rating; and three physiological indices: systolic and diastolic blood pressure, pulse rate, and plasma hydrocortisone level. Significant changes in the predicted direction were obtained with all of the psychological variables. Blood pressure and pulse rate were significantly altered, but plasma hydrocortisone level was not.

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HYPNOSIS IN SURGERY
I. THE POST-GASTRECTOMY DUMPING SYNDROME

by Frank J. Bonello, M.D., Raymond C. Doberneck, M.D., Aaron A. Papermaster, D.D.S., Ward O. Griffen, Jr., M.D., and Owen H. Wangensteen, M.D.[1]

Over the past twenty years subtotal gastrectomy has become the procedure of choice in the surgical treatment of peptic ulcer. Following surgery, approximately six to thirty-eight per cent of all patients (1, 2) will develop postprandial distress, fullness, nausea, belching, perspiration, dizziness, palpitation and various other vasomotor symptoms, and occasionally intestinal symptoms of constipation and diarrhea. These patients comprise the group referred to as the post-gastrectomy dumping syndrome. Fortunately, the vast majority of these recover spontaneously without therapy. However, in many of these individuals the symptomatology becomes incapacitating and disabling. Jordan (2) reports an incidence of 15 per cent who have major symptoms, while in our clinic two per cent have been disabled by severe symptoms (3). Although numerous and varied forms of therapy have been tried, the final results in this group of patients have been very unsatisfactory. Among the medical measures invoked with only variable success are drug and dietary management. Surgical procedures, such as conversion of Billroth II gastrectomies to Billroth I and gastropexy, have also attained only mediocre results.

In order to understand fully the development of this particular syndrome, it is necessary to consider the effect of psychic states on gastric function and the possibility that these very factors may be of extreme importance for the precipitation of the dumping syndrome.

Wolf and his associates (8) made significant contributions to this subject. They had an opportunity to make careful observations of their patient with a gastric fistula, Tom, and were able to show that day to day life situations which provoke certain patterns of emotional reaction induce hypersecretion of the stomach comparable to that which could be produced experimentally in animals with prolonged administration of histamine, vagal stimulation, or sham feeding. They showed that emotions such as fear and sadness were accompanied by an ischemia of the gastric mucosa and by inhibition of acid secretion and motility. They also showed that emotional conflict involving anxiety, hostility, and resentment was accompanied by accelerated acid secretion, hypermotility, and hyperemia of the gastric mucosa resembling hypertrophic gastritis. This sequence was usually associated with gastric complaints in the nature of heartburn and abdominal pain. If these emotions were sustained, they were accompanied by severe and prolonged hyperemia, hypermotility, and hypersecretion resulting in mucosal erosions and hemorrhages which could be induced by even the most trifling trauma, and frequently bleeding points appeared spontaneously. Contact of acid gastric juice with such a small eroded surface in the mucous membrane resulted in accelerated secretion of acid and further engorgement of the mucosa. Prolonged exposure of such a lesion to the gastric juice ultimately

[1] All of the authors are of the Department of Surgery, School of Medicine, University of Minnesota, Minneapolis. This work was supported by United States Public Health Service Grant RG-5221.

resulted in formation of the gastric ulcer. The lining of the stomach was found to be protected from its secretion by an efficient insulating layer of mucus enabling most of the small erosions to heal promptly. Lack of such protective mechanism in the duodenum may explain the higher incidence of chronic ulceration in that region.

It can be seen, therefore, that psychic states produce a chain of events which may lead to the production of gastric mucosal changes. It is likewise conceivable that similar mechanisms are operative in the production of the post-gastrectomy dumping syndrome.

METHODS AND RESULTS

The use of hypnosis as treatment for the post-gastrectomy syndrome in this clinic began in September 1956. Since then a total of 36 patients have undergone therapy. All patients were first evaluated by history, physical examination, gastrointestinal series, and examination of gastric juices after histamine stimulation in order to eliminate recurrent ulcer or other organic disease as the cause of symptoms. In addition many patients while blindfolded received intragastric instillation of various solutions, including 100 cc. of 50 per cent glucose in an effort to reproduce symptoms.

In none of the groups was there any organic disease as demonstrated by the above methods, and less than 25 per cent responded with typical symptoms to the hypertonic glucose.

Our method of therapy has been weekly or biweekly individual sessions for approximately one to two months, with gradual lengthening of the interval between sessions, depending on the individual response. In the vast majority of cases efforts have been directed toward mere symptom removal rather than attempting to probe into the life situation of the individual too deeply. On the other hand, our discussions with these patients seemed to indicate that many of them were living in an environment of mental stress.

The present group includes 19 males and 17 females, whose ages range from 31 to 74 years with a mean of 57 years and whose gastrectomy was done from 2 to 14 years ago (mean, 6 years). All patients were well below ideal weight. Nearly all types of gastrectomy are included in the group, but the predominance of the Billroth II and the tubular resection is probably accounted for by the fact that in the years just prior to 1955 these were the common gastric resections performed in this clinic for peptic ulcer. Since then segmental gastrectomy has been the procedure of choice for all peptic ulcers, save the antral ulcer, for which a distal gastrectomy must be done. The types of operation are shown in Table 1.

TABLE 1

Billroth I	2
Billroth II	14
Tubular	14
Segmental	5
Total (Roux Y)	1
	36

Only three patients in this group underwent gastrectomy for carcinoma, and it has been a common observation that post-gastrectomy symptoms are rare in this group. The patient with gastric cancer usually sacrifices only a reservoir; the patient with an ulcer loses also a goodly portion of an active digestive system.

The participants in this group have been followed from 2 to 33 months (mean, 15 months). Only 4 patients have been followed for less than 8 months. After an apparently "steady state" has been reached, all patients are re-evaluated semiannually. To attain the "steady state" between 1 and 10 sessions have been necessary, usually 3 or 4 being sufficient.

Results are indicated in Table 2.

TABLE 2

	Number	*Per Cent*
Excellent	9	25
Good	11	31
Fair	6	17
Poor[2]	10	27
	36	100

By excellent result is meant complete or nearly complete relief of symptoms with gain of weight. Good results indicate marked reduction in severity and frequency of symptoms with gain of weight, while fair indicates some subjective response without gain of weight. Poor indicates neither relief of symptoms nor weight gain and includes 4 patients who had originally been classed as good or excellent results and then suffered a recurrence of symptoms. Weight gains have ranged as high as 17 pounds in 31 months and 9 pounds in 1 month. The average gain is 5.6 pounds before a plateau is reached after an average of 10.8 months.

Among the ten patients listed as poor results, four refused further therapy after four sessions or less. Only two patients can be called completely cooperative. An interesting situation was uncovered in three of the four patients who ultimately had recurrence of symptoms after varying periods of relief. Only one patient suffered a relapse with no apparent reason. This is outlined in Table III.

The conclusion that emotional stress played a major role is inescapable. Thus, excluding these four from their original categories and reclassifying them as poor results, we have obtained at least good results in 56 per cent of all cases. This, in our opinion, is a most satisfactory result.

CASE REPORTS

1. Mrs. J.J. is a 48-year-old female whose difficulty began in 1944, when she was under rather considerable emotional stress. At that time she began having persistent epigastric pain and was seen several times by a doctor, who made roentgenograms and told her she had a mass in the lower abdomen. An operation revealed a large pelvic tumor, which was removed. The patient made a satisfactory recovery from surgery, but in the next several months she lost 30 pounds and began to suffer from chronic fatigue, epigastric pain, and occasional bouts of vomiting. At the same time she was having marital difficulties and finally obtained a divorce. After the divorce the pain disappeared except for occasional recurrences. She frequently saw doctors, who told her that she was suffering from an ulcer; roentgenograms, however, were consistently negative. In 1949 she remarried, and two years thereafter the pain became constant and severe. Films at that time revealed a large pyloric diverticulum. Sub-total gastrectomy was done in March of 1952, but following the operation the patient still had considerable epigastric pain, occasionally necessitating narcotics. In 1955 she had a splanchnic block, which gave her relief for several months, but ultimately the pain returned and became more intense. In July of 1956 bilateral truncal vagotomy was done. The vag-

[2] Includes 4 patients who had varying periods of relief prior to remission.

TABLE 3

Patient	*Age*	*Initial Result*	*Period of Relief*	*Comment*
F.S.	72	Excellent	1 year	No apparent reason
O.J.	67	Excellent	1 year, 9 months	Recurrence of symptoms after marriage of only daughter
D.McL.	52	Excellent	3 months	Recurrence after discontinuance of county support
D.P.	72	Good	1 year, 6 months	Recurrence with appearance of paranoid delusions

otomy served to relieve only the most severe pain. By October of 1957 the patient lost 25 pounds and at that time began to suffer from sleeplessness, nervousness, and severe episodes of persistent pain which required Demerol for relief.

This patient was treated by suggestive therapy, as were all the other patients, but she obtained minimal, if any, relief. Because of the fact that she was an excellent hypnotic subject and could perform a wide variety of phenomena indicative of deep hypnosis, a hypnoanalytic procedure was begun. The patient was treated over a total of approximately 25 hours, during which time the following summary characteristics have been noted. The patient has an extremely rigid personality, which does not allow her any leeway in spontaneous emotional behavior. She exhibited a hostile dependency on her father because of his extreme rigidity and punitive attitude. She has throughout both marriages exhibited an extreme competitiveness with men, socially and industrially, and by marrying men who are potentially alcoholics and rather weak insofar as personality characteristics are concerned. She has always shown independence toward all those about her, although she has an extremely strong need for love but is unable to accept it because of her independence. The patient has on numerous occasions brought forth feelings of intense unconscious rage against her husbands for their weakness, alcoholism, extramarital affairs, and numerous other transgressions which have upset her rather severely. However, she was unable to express the intensity of this anger on a conscious level because of strong repressive mechanisms which she has had since early childhood.

As the patient has continued in hypnoanalysis, she has begun to verbalize many of these feelings; her pain has subsided to the point at which it is infrequent, mild, and easily controlled.

2. Z.R.F. is a 60-year-old male who had a Billroth II gastrectomy in 1949 and was re-operated on in November of 1954 because of persistent symptoms and the recurrence of a gastro-jejunal ulcer. The patient's complaints at the time he was first seen were postprandial weakness, sweating, pain, and diarrhea, especially after meals. He was eating approximately five meals per day, all of which were small, but noticed his symptoms regardless of what he ate. The patient began therapy in September 1958, and was seen three times. After the first visit the patient improved markedly, and his symptoms disappeared almost completely. He was not seen again for approximately four weeks, at which time he had noticed a recurrence of symptoms but could not attribute them to anything that had happened. However, under hypnosis with the aid of automatic writing, the fact was brought out that his son had recently suffered a business reverse as a result of poor judgment. The patient then began to verbalize much of his hostility; following this he was seen on one occasion two weeks later, at which time there had been no recurrence of his symptoms. He has continued to do well since.

3. J.R. is a 47-year-old male who had a Billroth II gastrectomy for peptic ulcer in 1952. Since that time the patient had noticed weakness and sweating, relieved by lying down, occurring immediately after eating. The symptoms had been quite severe and had interfered markedly with his ability to carry out his usual occupation. This patient was first seen in the out-patient clinic prior to admission to the hospital for study. On that occasion hypnosis was done, a light trance achieved, and the patient given strong emphatic suggestions that he would be able to eat without stress, that he would be able to eat all foods comfortably and that he need no longer be bothered with the weakness or sweating. It is interesting to note that immediately following this hypnotic session patient was admitted to the hospital for definitive study, but we were unable to produce any dumping in this patient, either on tubal instillation of various preparations or by normal meals. The patient was seen on three occasions, on each of which similar suggestions were given. He made a remarkable recovery and has been asymptomatic for the past ten months; following this period he returned to the clinic after having had another upset, which was quite severe and which on close inquiry was related to a financial reverse. After another treatment at that time the patient has been asymptomatic.

DISCUSSION

Because of the numerous and varied psychic factors influencing human gastric function, it seems logical that such factors also play an important part in the production of the post-gastrectomy dumping syndrome. Further evidence is lent this thesis by the observation that foods incriminated by patients as

the instigators of the post-gastrectomy symptoms do not consistently reproduce symptoms when given by nasal tube to the blindfolded patient. As a result of our experience, we are firmly convinced that the psyche is a most important factor in the production of the post-gastrectomy dumping syndrome. After failure of many diverse expedients to afford relief, we have turned to hypnotherapy. Although yet not completely certain of the ultimate outcome, we continue to be favorably impressed with the results of this method. In spite of occasional failures we feel that the accomplishment with hypnotherapy in our hands has been better than by any other method or combination of methods in the alleviation of the postgastrectomy dumping syndrome.

SUMMARY

A total of 36 patients has been treated with hypnotherapy for the post-gastrectomy dumping syndrome over the past three years. Twenty patients (56 per cent) have experienced symptomatic relief and weight gain. These results we feel are reassuring and warrant continued use of the method.

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HYPNOSIS IN SURGERY
II. PAIN

by A. A. Papermaster, D.D.S., R. C. Doberneck, M.D., F. J. Bonello, M.D., Ward O. Griffen, Jr., M.D., and Owen H. Wangensteen, M.D.[1]

Perhaps the greatest fear of the surgeon has been the association of pain with surgery in the mind of the layman. Thus there has been a continual search for improvement in the analgesic drugs, but at this time none have been found which are completely satisfactory. For some of these deficiencies of drug therapy in the alleviation of pain and discomfort attending operation, hypnotherapy is proving a worthy and acceptable substitute.

This presentation records our experiences in assessing the worth of hypnotherapy in alleviating the discomfort attendant upon operations by comparing the narcotic requirements of a group of patients undergoing major abdominal surgery with a similar group undergoing the same operations but who had not received hypnotherapy.

METHOD

In the hospital while awaiting operation the patient is placed in the hypnotic state once or twice prior to operation. Suggestions made to the patient are designed to instill in his mind a sense of confidence in the surgeon, a spirit of cooperation, and a buoyant feeling that the operation used will turn out well.

In addition suggestions are made that nasal tubes, urinary catheters, and the administration of intravenous fluids will cause no distress or discomfort. Finally it is suggested that the area of incision will cause no discomfort during the convalescent period.

Naturally this format is subject to individual alteration, since each patient must be given suggestions which meet his particular needs best. The patient is also informed that drugs and sedatives are available to him if needed.

RESULTS

A. Preoperative Hypnotherapy for the Postoperative Period.

The results of preoperative and postoperative hypnotic suggestions are found in Table 1, in which the treated group is compared with a group of untreated controls selected at random and undergoing the same operations. It is difficult to evaluate the benefits derived by each patient because of the subjective nature of pain, but in our treated series, among six patients who had undergone cholecystectomy by the same surgeon, four treated patients received 0, 1, 2, and 4 doses of a narcotic (demerol, 50 mgm) respectively after surgery, whereas two untreated control patients were given 8 to 11 doses of the same narcotic.

TABLE 1

	Untreated	*Treated*
Number of patients.....	33	33
Total doses (entire convalescence)	250	139
Average number of doses	7.57	4.21
Range of doses.....	0-44	0-29

From Table 1 it is obvious that a marked reduction in need of narcotics occurred in the treated group (43%). The advantage of this is obvious, since it is well known that narcotic agents reduce the physiologic efficiency of or-

[1] All of the authors are of the Department of Surgery, School of Medicine, University of Minnesota, Minneapolis. This work was supported by United States Public Health Service Grant RG-5221.

gans such as kidney and lung. Furthermore the psychological state of the treated group was much better than the control group, though the former contained several patients with ulcerative colitis and similar diseases having known psychological involvement. Indeed it was those patients, who were expected to present the greatest postoperative psychological problems, that displayed the greatest buoyancy of spirit.

CASE REPORT 1

M. D., a 52-year-old female, underwent a panhysterectomy and bilateral salpingo-oophorectomy for carcinoma of the ovary in 8-58. Postoperatively she required only 3 doses of that narcotic. In addition she was proctoscoped preoperatively under hypnoanesthesia. Previous proctoscopic examinations had occasioned the use of general anesthesia and narcotics. This procedure was carried out easily and without any discomfort to the patient. No narcotics were required.

B. Hypnotherapy for Endoscopy.

Recently we have cooperated with the proctologists in hypnotizing patients undergoing endoscopic examinations. Practically all the patients reported that they had experienced discomfort at previous examinations and in some cases extreme pain. Nine of 13 patients did not experience any discomforts during the examination while in the hypnotic state, while two others reported only a minimum of discomfort. There were only two failures in this group. In fact, the proctologists reported that their examinations were made easier for them and that "the sigmoidoscope practically fell in." At the present time we plan to extend this work and evaluate the use of hypnotherapy in bronchoscopy and cystoscopy.

C. Bizarre Pain Syndromes.

Patients in this category had received previous surgical and drug therapy without relief, and several were being considered for cordotomy at the time of institution of hypnotherapy. Patients in this category have been divided into five groups, and detailed information is presented in Table 2.

1. Phantom Limb.

Phantom limb is a term applied to the phenomena by which an amputee is conscious of his absent limb; the sensations of which the patient may be aware in his missing extremity can be those of extreme pain, cold, rigidity, or movement. The complaint is present in most patients following amputation. In some patients the condition disappears after a period of convalescence, and in others it becomes less annoying, while in others it progresses to the degree of torture.

Various forms of treatment have been attempted. Administration of sedatives and narcotics, injections of procaine, as well as intravenous injections of procaine have often failed. Sympathectomy, excision of neuromas, peripheral nerve section, prefrontal lobotomy, and excision of the portion of the premotor area of the cerebral cortex have been employed, but there is little evidence that any of these sur-

TABLE 2

Type	*No. of Patients*	*Results*			
		Poor	*Fair*	*Good*	*Excellent*
Phantom limb	7	0	0	2	5
Low back pain	2	0	1	0	1
Facial neuralgia	3	2	1	0	0
Arthritis	4	3	1	0	0
Terminal cancer	6	2	0	2	2
Total	22	7	3	4	8

gical attempts has been proved to be completely effective (6). Linval Krantz reported a dramatic cure of phantom limb pain with four electrical shock treatments (7).

In our clinic seven severe cases have been treated for the relief of painful phantom limb with complete or nearly complete relief in each case. Relief has persisted to the present time and ranges from two years to six months.

Method. At first we attempted to suggest to the patient that on awakening from the hypnotic trance he would be free of discomfort and would not be conscious of the amputated limb. This method failed. Consequently, the patient while in the hypnotic state was regressed to a period in his life before surgery. He was then made to relive his entry into the hospital, his preparations for surgery, his surgery, and recovery. He was told that on awakening he would be free of discomfort and not in any way be conscious of the missing limb.

CASE REPORT 2

C. K., a 12-year-old male, underwent right hemi-pelvectomy on 8-24-57 for a rhabdomyosarcoma. For ten days thereafter he experienced phantom limb pain, requiring narcotics for relief. At this time hypnotherapy was begun. Since then he has been completely asymptomatic, requiring no narcotics or analgesics, and he wears a prosthesis comfortably.

2. Low Back Pain.

Only two patients with low back pain have undergone hypnotherapy. One patient, who was receiving compensation for his injury, did not respond well to hypnotherapy. Probably the lack of sufficient motivation prevented a successful outcome. The other patient, however, is perhaps our most dramatic result.

CASE REPORT 3

O. O., a 69-year-old male, underwent laminectomy for a herniated fifth lumbar disc in 1946. From this he sustained no relief, and in 1948 a fusion was done without any improvement; in fact, the pain now radiated into the legs. In 1949 bilateral lumbar sympathectomy was done, which served only to aggravate his difficulty. Consequently a high thoracic cordotomy was done in 1952. This produced only temporary relief, and a second cordotomy was performed at a higher level in 1953. Again there was only temporary recession of pain, and narcotics were now begun. Finally a third cordotomy at an even higher level was done in 1955, but without relief, and in 1956 he was confined to a wheelchair, so severe was the pain. As a last resort hypnotherapy was begun in March 1958. After the initial session the pain disappeared, and the patient is now able to be ambulatory with a cane and care for himself since that time, a period of a year and a half.

3. Atypical Facial Neuralgia.

These patients present a most distressing problem. The cause of this syndrome is unknown. Trigeminal rhizotomy, procaine block, and alcohol injections have helped for short periods of time. We have not been successful with hypnotherapy on three patients previously treated by trigeminal rhizotomy. One of us (A.A.P.) has had complete success with one patient who had not received previous surgical or medical treatment.

4. Arthritis.

We have undertaken hypnotherapy in four patients with arthritis, three having the hypertrophic and one the rheumatoid variety. In all cases constant medication, either cortisone or salicylates, was required. In none of the four was a successful outcome obtained. We have no explanation for this failure.

5. Metastatic Cancer.

The administration of large doses of sedatives and narcotics, with its problems of eventual addiction, for the relief of pain in terminal cancer leaves much to be desired. It is our opinion that posthypnotic anesthesia has a place in the treatment of this morbid condition. Consequently we have undertaken treatment of six such pa-

tients, with good and excellent results in four. Relief persisted until death in three, and the fourth patient is still alive and comfortable three months after the initial session. In one of the three patients it was possible to avoid cordotomy. Erickson (8) has also reported three instances of similar good results.

CASE REPORT 4

H. W., a 62-year-old male, was found at laparotomy to have an unresectable carcinoma of the pancreas. The tumor produced such pain and intractable hiccoughs due to diaphragmatic metastasis that sleep was impossible. After two sessions of hypnotherapy the patient enjoyed a more restful sleep and marked relief of the hiccoughs. This benefit persisted until the time of death several weeks later.

DISCUSSION

Though much has been done in the past two decades to improve the safety of operations, little has been done to make the memory of the convalescent period a happier experience for the patient. We are greatly encouraged with the results of these exploratory uses of hypnosis and hypnoanesthesia in surgery. We have encountered in the postoperative period, in consequence of pretreatment with hypnotherapy, an appreciable reduction in the need of these patients for sedatives and narcotics; also, a welcome and noticeable buoyancy in the spirits of these patients is very apparent, together with a uniformly better attitude of cooperation toward attending nurses and physicians.

The results obtained in the treatment of the phantom limb syndrome have been almost spectacular in nature. It is not possibly to evaluate fully the response to the treatment of this condition from the few cases treated.

We have confined ourselves to symptomatic treatment only. None of our cases were given psychotherapy. It has been our belief that many of our failures were due to some unexpressed psychological problems which we were not prepared to treat.

The use of hypnoanesthesia for patients with metastatic cancer has been a boon to these unfortunate individuals. Moreover, it has been possible in many instances to avoid formidable operative procedures to secure relief from pain, many of which operations failed to produce the desired and expected relief.

SUMMARY

Hypnotherapy has been found to be a very worthwhile therapeutic measure to allay the fears and anxieties of patients who are about to undergo surgery and to reduce the pain and discomfort in the postoperative period. The phantom limb syndrome has responded to hypnotherapy in seven cases with complete success. Hypnoanesthesia has been found useful in reducing the suffering of patients with metastatic cancer. Hypnotherapy is not intended to supplant existing useful techniques in the management of pain and discomfort but to be used rather as an adjunct to surgical therapy which simplifies and accelerates convalescence.

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BRIEF CLINICAL REPORTS

AS-IF ELECTROSHOCK THERAPY BY HYPNOSIS

by Donald W. Schafer, M.D.[1]

As-if therapy has been used by many hypnotherapists, but, to the knowledge of this author, it has not been used in relation to electric shock therapy. As can be inferred from the work of Miller, Clancy, and Cummings (1), which showed no demonstrable differences in the results obtained by treating chronic catatonic patients with non-convulsive stimulation with a unidirectional current and thiopental sodium (pentothal), in combination or separately, suggestion probably plays a significant part in such therapy. In the work cited, there were no significant differences noted in the degree of "social improvement" obtained from the three separate types of treatment, and positive results were secured from all three types. Fink, Kahn, and Korin (2) in their work compared grand mal convulsions with sub-convulsive stimulation and concluded that ECT was a non-specific, traumatic induction of a state of altered cerebral function. They also reported that the extent of improvement depended on the pattern of interaction of the patient with the environment and the expectation of the evaluations. Finally, Brill and others (3) used five comparable groups of acute psychotic patients, three of which groups received ECT and two of which did not, but all of whom were rendered unconscious by some method. They concluded that there were no statistically significant differences in the therapeutic effectiveness of the five variations of ECT and simulated ECT, either as to the type of treatment given or the type of patient treated, 67 schizophrenics and 30 depressives. They felt that the therapeutic agent probably was: (1) repeated rapid induction of unconsciousness, (2) the psychological meaning of the treatment to the patient, and (3) the unusual amount of care and attention involved in the experimental procedures.

The following case report illustrates the as-if electroshock treatment of a manic patient with hypnosis. There are several interesting aspects to this case. It is felt that an understanding of what is expected by the hypnotist is necessary for the patient to respond to suggestions; this was possible because of previous experience with ECT. In addition, this patient is of interest because, although a manic, he was hypnotizable but manifested various depths of hypnosis. For these reasons, this report of the therapy employed will be given in detail.

Case Report

This 60-year-old white male cameraman was admitted to the psychiatric service of the Methodist Hospital of Southern California in Arcadia on July 5, with subjective complaints of a band-like pain around his head and pain in his cervical area, the latter presumably caused by a minor auto accident two nights prior to admission, which affected the site of an old injury received in an accident 20 years previously. His wife stated that he had been getting progressively more disturbed, demanding, unreasonable, and grandiose for the past month. She felt that he had recently used alcohol excessively, but it is doubtful that he was a true alcoholic.

Present Illness: This patient had a previous manic attack approximately eight years previously, at which time he attempted to retire from his work, after an argument with his employer. Within a few weeks he had developed an acute manic state and was treated at a sanitorium in

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Pasadena, where, during a three months stay, he received ten electroshock treatments. His wife stated that his adjustments were poor for a short time after his release, although he showed no further manic symptoms. Following an emergency gallbladder operation upon his wife, he made a good adjustment and returned to his job as cameraman until his present attack.

The patient had recently developed a cataract in his range-finding eye which forced him into permanent retirement, and this seemed to precipitate a reaction similar to the one eight years previously.

The patient stated that his parents had always quarreled and had little love for him, his sister, and his brother. He described his brother as an alcoholic and jealous of him. The patient had been in the movie industry all his working life, starting as a pioneer photographer. The patient and his wife had no children.

Mental Status: This 60-year-old patient appeared physically healthy, vigorous and younger than his years. He had no abnormal thought processes, was without delusions or hallucinations, and was oriented in all spheres. His speech bordered on circumstantiality, and his general behavior was very grandiose. He promised to cooperate, tried to be agreeable with everybody, but could not follow through with these promises. He spoke of being a friend to everybody at one moment, and the next moment he mentioned how people had taken advantage of him and how this hurt him, then he would sob and utter bitter recriminations. He was unable to sustain orderly activity and paced the hall speaking loudly.

The physical examination disclosed evidence of old fractures of the neck with arthritic changes, which could account for much of his neck pain.

Course in the Hospital: The patient vehemently protested the use of shock treatment, which had worked so well eight years previously. He did not absolutely refuse, but requested that everything be done which could possibly obviate the use of the shock machine. He felt that his headaches, which he had dated from the time of his previous ECT, had been caused by those treatments and, in his typical manic-like way, described these headaches as a band-like feeling around his head, explaining, "My halo has slipped."

The patient was told that there was a possibility that hypnosis could be able to cure him if he did not want ECT, and that it was worth the attempt. Upon his consent, he was placed in a comfortable chair and hypnotized by use of the coin technique of induction. It is to be noted that he went into the hypnotic state fairly quickly to a medium or deep-medium stage. He was hypnotized three times during the first week of hospitalization as an exploratory and preparatory measure. Throughout the course of hypnotherapy, while the patient was able to develop hand anesthesia, manifest post-hypnotic behavior, visualize vividly memories of his childhood and relive incidents of the past, he would also spontaneously ask questions or make adjustive movements freely. In the fourth hypnotic session the details of his previous hospitalization were reviewed by the patient in a waking state, together with a description of the treatment room, the personnel, and other details.

Then, a session with "as-if ECT" was given by the author as follows: "You are now in deep hypnosis and I want you to visualize yourself back at the sanatorium, and you are being taken from your room by a couple of orderlies to the room where the treatments are given, which you and the other patients call the snake pit. You are going down the steps of this sub-basement room and into the room and over toward the bed upon which your treatment will be given. You notice the nurse standing at the head of the bed with the electrodes in her hands. You notice the doctor there, and he acknowledges your presence and speaks to you and motions for you to get on the bed. You notice that there are three or four orderlies there, and then you get on the bed, having made some typical wisecrack first, and when you lie down you hold out your arm, and the doctor puts the tourniquet around your arm. Now he's rubbing your arm and injecting the medicine so as to put you to sleep. Now you are asleep. Now you have had the treatment and you are beginning to wake up. You are feeling groggy. You are feeling a little disoriented, but you are coming out of it fast and now you are getting up from the bed and you will be taken out and fed now. You will have exactly the same results with this treatment as with the corresponding treatment in your previous series, except you will not develop the confusion and amnesia that you did during your previous course of ECT."

This was done four times during this session. After a two-day interval, four more treatments were given. After another two-day interval, a single treatment, the ninth, was given, and a tenth followed

a one-day wait, at which time it was noted that the patient had essentially the same results from this series of "as-if ECT" as he had derived from the ECT eight years previously. This was confirmed by his wife, by the author's observations, and by the observations of the ward personnel, as well as by his sleep pattern, his attention span, and his behavior in occupational therapy.

At the close of the "electroshock treatments," the patient was hypnotized several times and taught how to use auto-hypnosis to relax his neck muscles and to relieve any headache that might be present. His way of doing this was to sit in the chair, fix his eyes on some point in the room, and count slowly to ten. When he got to ten his eyes would close, and he would bend his head forward on his chest. Then he would tell the different muscle groups, starting with the feet and toes and working upward, to relax, moving these muscle groups appropriately in order to get them to relax, and he would pay special attention to his neck area. After he had gone through this whole procedure he would stay in this position for about another ten to fifteen seconds and then tell himself to awaken, at which time he would awaken, usually with remarks about how much better he felt. It is to be noted that at the same time this was going on he was also using a head-harness, a neck-stretching technique advised by the orthopedic consultant. Also, the patient became disagreeable and negativistic in relation to his wife, and in psychiatric consultation it was decided that they should part amicably and try to live apart. This paralleled the reaction that followed his previous treatment. This patient was followed in the office with two visits, after which he stopped coming. However, a card and letter were received from the patient at Christmas, at which time he stated that he and his wife were again together and that he was still using the auto-hypnotic process to relax himself, to relieve his headache, and to help his neck pain. He added this was still working perfectly, and that he was using it once or twice daily.

Information from his wife about two months after the patient's discharge disclosed that they were beginning to get back together, that the patient had not returned to the over-use of alcohol, that he was seemingly accepting his retirement from work better, and that he was making a new adjustment to life at his "desert ranch."

CONCLUSION AND SUMMARY

A case of a patient suffering from an attack of mania is presented with details of his "as-if" electroshock treatments by means of hypnosis. The reasons for the success in this case are felt to derive from his subjective reactions to his visualization of the previous ECT, enhanced by his high motivation.

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PSYCHOGENIC ALTERATION OF MENSTRUAL FUNCTIONING: THREE INSTANCES

by Milton H. Erickson, M.D.[1]

That menstruation may be precipitated, delayed, interrupted or prolonged by strong emotional stress is a common observation. Usually such effects are unexpected and seemingly beyond the volitional control of the individual. Unquestionably, speaking

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biologically, lack of volitional control is as it should be. Nevertheless, the readiness with which an abnormal alteration of some physiological functioning is effected is often in sharp contrast to the difficulty encountered in attempting medically a purposeful directing of those same processes. Hence, any instances indicating an intentional purposeful control, whether conscious or unconscious, of physiological functioning ordinarily beyond volitional influences suggest the possibility of significant research.

Following are three separate clinical accounts of an intentional purposeful interference with the menstrual cycle. Two of the women deliberately employed hypnotic experience to effect special personal purposes, while the third utilized in a new fashion a psychosomatic pattern of reaction established in other relationships, doing this just after she had been carefully trained hypnotically for a possible correction of this pattern.

Case 1

A young woman, an experienced hypnotic subject, had many times been much annoyed by the insistent sexual importunities of a certain man. His behavior on one occasion had disclosed to her that he had an extreme olfactory aversion for menstruation and that he invariably detected the odor and would resort to laborious methods to avoid even the slightest physical contact with a menstruating woman. She had also learned that he kept a time table on his female acquaintances.

She was invited to a physically confining ten-day social function, which happened to be scheduled for the same time as the mid-period of her menstrual cycle. After she had accepted, a letter from the man apprised her of the fact that he, too, was an invited guest, and in this letter he suggested that they see much of each other during the entire social gathering.

She consulted this writer about the possibility of "having an early period." The frequent effects of psychological attitudes and reactions upon menstruation were explained to her, and it was then suggested post-hypnotically that, throughout the week preceding the social function, she think and feel and sense and function as if it were the week immediately preceding her menses. She agreed to this, and the post-hypnotic suggestions were reinforced by a detailed explanation to her, in a state of ordinary awareness, of what she could expect her body to do.

She accepted the man's invitation after amending it in her reply to include daily afternoon and evening "cheek-to-cheek" dancing, an item which he fervently promised her in the return mail.

At the social affair some hours after she had induced the man to declare boastfully to the guests that he was "really out of circulation" because of a "promise to dance cheek-to-cheek" with Miss X, her menstrual period began and lingered for ten days, instead of the usual five or six, during which time she thereby thoroughly punished the man for all of his previous affronts.

Comment

That the alteration of her menstrual cycle was simply a coincidence appears improbable. She was well aware of what she wanted to accomplish before she sought professional advice. This was given on an experimental basis. The subsequent events were in actual accord with her wishes and were also a reasonably logical outcome of the suggestions given her. Subsequent inquiry in both the trance and waking states yielded no significant information except that she had accepted the suggestions and her body had "felt the way it always does a week before my period. But I don't know how I did it."

Case 2

An artist's model with a regular menstrual cycle and a history of profuse flow with the first few days was offered an unexpected assignment in nude posing on the second day of her period. She had had previous unsatisfactory experience with intravaginal tampons and was about to refuse the assignment when she recalled her previous experimental work with a physician interested in hypnosis and psychosomatic medicine. This led her to accept the assignment with the intention of employing autohypnosis, with which she was experienced, to inhibit her menstrual flow. A telephone call to this writer confirmed her in her intention, but no helpful advice could be given to her except that she

should rely upon the capacity of her unconscious mind to function competently.

Shortly before reporting for work she developed an autohypnotic trance and in some manner unknown to her conscious mind she inhibited the flow from 7:00 P. M. until her return home at 11:00 P. M., after 2½ hours of posing in the nude. She employed no precautions; and, as she explained, she "forgot" her period "both psychologically and physiologically." "I didn't remember after I came out of the autohypnotic trance that it was my menstrual period, and I didn't recall that fact until the flow slowly resumed as I was preparing for bed. I just forgot it as completely physiologically as I did psychologically. I still don't know how I did it."

On another occasion, where the values of the situation were significant, this same young woman discovered that her regular menstrual period would intervene and bar her attendance. Again she consulted this writer, who explained that the appearance of the menses was often temporally altered by various physiological forces, and hence, in view of her past experience in inhibiting menses, she might try the experiment of delaying her period. Instead, because she thought it the safer procedure, she induced her period ten days early.

Subsequently, she postponed her period experimentally for ten days, beginning the period of delay the day before her period was to begin, and after the usual molimina had indicated that the menses were about to begin.

COMMENT

This second account is essentially an experimental study on the part of the woman. She was interested in her body and what it could do. Her knowledge of psychosomatic medicine and her extensive knowledge of hypnosis provided an ample background for her own personal investigation. How she accomplished her various purposes is not explained by her simple assertion of "forgetting physiologically." Yet one can draw somewhat of a parallel with the "forgetting" of intense hunger that can be effected by a pleasing interest. At all events, her findings suggest that experimental investigations of psychosomatic alterations of physiological functioning are feasible.

CASE 3

An out-of-state woman, much in love with her husband, invariably reacted with severe physical symptomatology, prolonged from one to three weeks, whenever she became sufficiently distressed emotionally. Her symptomatology variously included marked hematuria, protracted diarrhea, severe nausea and vomiting with excessive weight loss, and disabling headaches and backaches. These conditions invariably developed suddenly, almost always after a quarrel with her husband because of her unwarranted and unreasonable jealousy, and, as she explained, "My sickness, no matter what kind, disappears like magic, just as soon as I feel punished enough. In an hour's time I'm well, but I'm usually pretty washed out." She sought therapy to free herself from this psychosomatic pattern, and she had arranged to be away from home an indefinite length of time.

In taking her general history, she was found to have a pain-free 30-day menstrual cycle, with almost exact regularity, and she carried a small calendar appointment book in which she had marked for the entire year the date of her expected periods with a notation of their acual date of occurrence. Her book was examined from January to September, and in two instances the expected date and the actual date differed by one day only.

She was found to be an excellent somnambulistic hypnotic subject, and the second and third interviews were spent in training her hypnotically for therapeutic work. On the evening of the third interview, in accord with a previous arrangement, she attempted to reach her husband by long-distance telephone and failed. (She had not made allowance for the difference in time zones.) She developed a furious rage, went out walking, encountered a strange man and, for the first time in her life, engaged in illicit sex relations. She reported this to this writer the next morning with much contrition, and added that her period was due in three days and she hoped she would not become pregnant. She postponed further interviews, stating that she would call after the second day of the expected period.

Six days later she came in to declare that she was pregnant and that she was going to seek employment and pay her own expenses throughout the period of her pregnancy. She demanded that she be placed in a deep trance and instructed emphatically that this pregnancy be impressed upon her as the final somatization of her emotional outbursts. She explained

that the pregnancy would give her an adequate period of time in which to mend her "habit of always and always taking my mad out on my body." When doubt was expressed about the certainty of the pregnancy, she was emphatic in asserting that her intense awareness of her own physical experience with three previous pregnancies (the last one eight years previously, contraception since then) left no doubt in her mind. The only instruction given her in the trance, in response to her request, was that she meet her situation adequately.

She secured employment that day and was not seen until six weeks later. She brought in letters addressed to the writer from two independent obstetricians, each of whom stated that she gave good physical evidence of pregnancy and both of whom commented, at her request, upon her unusually extensive and unusually early breast engorgement in relation to her pregnancy. After the letters were read, she requested that the writer call each of the obstetricians and verify the letters, but without betraying to either that she had been examined by another physician. The telephone calls merely confirmed the letters, but one obstetrician recommended a laboratory test as "confirmatory alone." The other, when asked about this, stated that he was confident about his examination findings, but would order a laboratory test if desired. Both expressed surprise at the extent of her breast development and stated an interest in following the breast development, which seemed to indicate a pregnancy much further advanced. This was related to the patient, and she listened quietly, then asked that she be hypnotized. In the deep trance she asked that she be instructed to discuss everything on her mind.

This was done, and she launched into a discussion of her wishes and fears concerning an abortion and her aversion to such a procedure. She debated the matter back and forth, then took up the plans she was formulating for giving birth to her child secretly and in some way securing an adoptive home for it. She wanted no advice or instruction from the writer, except in the form of encouraging her to pursue her ideas as freely as she could. She finally asked to be aroused from the trance with an amnesia for what had been discussed. Out of the trance she explained that she would telephone for an appointment "some time."

Eight weeks and four days from the expected date of the missed period, she came in for an interview, bringing letters, again from two different independent physicians. These letters contained the statement and a laboratory report to the effect that physical examination showed normal menstruation and that this was confirmed by a laboratory report of vaginal smears. She asked that a telephone call be made to each of them, again with the request that no betrayal be made that she had consulted another physician. Each physician confirmed his report and expressed curiosity as to why any woman would want a medical and laboratory examination and a special examination of her breasts to confirm a normal menstrual period. Both mentioned that, since she was an out-of-state patient, the suspicion had arisen that something illegal was involved, and hence the examinations had been most thorough. However, when she requested the letters which were to be addressed to the writer, it was apparent to them that her problem was emotional rather than legal.

The patient explained, "I just wanted you to be certain I hadn't secured an abortion, so that you would listen to me. Four days ago I woke up that morning and I knew I wasn't pregnant. I realized that I had just punished my body the way I always do when I get mad. I felt my breasts. They were smaller, the swelling had gone out of them, and they were just tender around the nipples, the way they always are just before I menstruate. So I called my boss and said I was sick and I couldn't come in, and I just stayed in my room to enjoy menstruating. It started about 11:00 A. M. and in just the usual way. And that afternoon I called doctors for appointments and explained I wanted a laboratory examination made of my vagina and I got the appointments for the next day, because I always flow very lightly until after the first night. Then I had to wait until I had the lab reports, and that's why I only got here this afternoon. But now something makes me think you should hypnotize me so I can tell you what's in my unconscious mind."

In the trance state the patient explained that the sexual episode had been seized upon "to teach me a lesson. I just remembered every feeling I ever had in my pregnancies and I just made my body have those feelings and that made me believe I was pregnant and that helped me to feel all the pregnancy feelings better. I even noticed how I started to walk like I was pregnant. I just got every one of the feelings that I learned when I was really pregnant. And I was so worried about being pregnant and what I would do and

how I could stick to my job. Finally, I went to bed one night feeling just completely whipped, knowing I'd have to take my responsibilities absolutely completely. I fell asleep exhausted, and the next morning I woke up feeling wonderful, knowing I wasn't pregnant. Tell me I'm all through punishing my body. I know I am, but I want you to tell me, too." There was some additional discussion, but the above contains the essential communications.

A friendly correspondence has been maintained with this patient at fairly regular intervals for more than four years. She has had no further physical symptomatology in relation to the emotional distress. Her pathological jealousy has disappeared. Her husband's acquaintance has been made and he also assures the writer that his wife's previous emotional outbursts and physical reactions are past history and that she is remarkably happy and well-adjusted.

COMMENT

This case report is a definite instance in which a patient adapted an established pattern of severe prolonged somatic disturbances of sudden onset and disappearance, in reaction to states of emotional stress, to a new and different personality problem involving a special order of physiological processes. It presents the intriguing problem of how extensively and how elaborately unconscious forces and motivations can be utilized to mobilize physiological functions in a systematically directed fashion. Considerable information exists in the literature about laboratory procedures in the conditioning of body behavior but there is little available information on how the learnings derived from body experiences can be utilized to influence or direct selected physiological processes.

SUMMARY

These three case reports indicate, each in a different way but each in relationship to hypnosis, that somatic learnings derived from body functioning can be utilized meaningfully but in an unknown fashion. Additional such case reports could conceivably serve in the further confirmation of these findings and in the development of more understandings in this important complex field.

Linn F. Cooper and Milton H. Erickson. *Time Distortion in Hypnosis.* Second edition. Foreword by Harold Rosen. Baltimore: Williams and Wilkins, 1959. xi + 206 pp. $4.

By André M. Weitzenhoffer, Ph.D.

Some years ago I had the pleasure of reading and reviewing the first edition of this book. Once again I am happy to have the opportunity of reviewing the second edition, although for a different publication, and saddened by the recent news of Dr. Cooper's untimely passing away. It had always been my hope that he would go on to explore experimentally this matter of time distortion, but this will not come to pass, and it will have to be done by others who, it is hoped, will approach this topic with equal enthusiasm and originality.

Except for the inclusion of a short but important and interesting section discussing the broader aspects of time distortion and a foreword by Dr. Harold Rosen, the second edition duplicates the first edition.

It is disappointing and somewhat disturbing to this reviewer to note that in the five years, more or less, since the first edition was published, no further experimental work of the kind performed by Dr. Cooper has been done or published in connection with time distortion, especially in view of the interest which has been shown in this work. Surely he had not exhausted the topic. In fact, by the author's own admission the work as reported in the first edition was largely exploratory and hence remains so at the publishing of the second edition. As I remarked earlier, while certainly the material reported was and remains intriguing and filled with implications, the fact also remains that for the most part the data lacked empirical substantiality. Objective measures and adequate quantification are missing, and many of the experiments which are described are methodologically over-simplified. A further weakness of the work is its failure to relate the author's findings to current psychological concepts and facts. One would have hoped to see, at least in the second edition, an attempt to relate time distortion as conceived by the authors to existing material on time distortion as observed in various drug-induced states, in sleep, and in certain pathological conditions, as well as to current and earlier works on time perception. The weakest part of the work, in this reviewer's opinion, is the theoretical discussion based on a "semantic interpretation" which when first published seemed somewhat hastily put together. It needed strengthening, and we can only regret that this was not done for the new edition.

Admittedly the authors are dealing with a complex and poorly understood phenomenon. Time has been a topic of no little interest among physical scientists, philosophers, and psychologists and has been a source of controversy. Furthermore, the study of time distortions is beset with all of the difficulties which accompany any attempts to study subjective phenomena. Certainly one must give the authors credit for their courage and initiative in even making an exploratory investigation of the matter. Looking back over the work, it seems to this reviewer that perhaps the most significant contribution here is in terms of methodology rather than facts or theory, a methodology which becomes most significant when seen in the clinical setting. It is perhaps for this reason that, as I remarked in my earlier review, by far the most convincing material on time distortion is to be found in its use by Dr. Erickson in connection with therapy.

Although it has shortcomings and is of limited scope, this book is well worth reading and should appeal to experimenters, theoreticians, and clinicians. It represents an original approach to the problem of time perception which cuts across many areas of scientific interest. The material in it is provocative and stimulating, and appears to be fraught with potentialities of all sorts. This work is recommended to the attention of experimentalists and clinicians.

Gosaku Naruse, M.D., Ph.D. *Techniques of Hypno-interview.* (In Japanese.) Tokyo: Seishin Book Co., 1959. 216 pp.

By Hirokazu Kurauchi, M.D., Dept. of Neuro-Psychiatry, Faculty of Medicine, Kyushu University, Japan

A book which has long been expected not only in psychological field but also in medical one has been published by Dr. Gosaku Naruse in 1959. The author himself is one of the most prominent and active hypnosis researchers in Japan, and he was the first to introduce modern scientific hypnosis in this country. He has been inquiring into hypnosis these ten years. Through his impartial scope of this science, he has

given out plenty of researches in several problems which have contributed to both psychology and psychiatry. Among his works, there is a study entitled "Decomposition and fusion of mental images in the drowsy and post-hypnotic hallucinatory state," which has been honored with an award as much the best piece of all psychological researches which appeared during 1951 in Japan. Since there had been published few scientific articles on hypnosis in those days, those who would study this phenomenon or those would apply this technique to other fields had been compelled to feel much confused. Therefore it is needless to say that they owed the benefits which have come from his study above mentioned.

While this book is written in easy style for reading, it keeps up high scientific level. It consists of nine chapters and one addendum. The chapter contents of this book are as follows:

1. Development of hypno-interview
2. What is hypnosis?
3. Techniques of hypnosis induction
4. Specific techniques of hypnosis induction
5. Techniques of hypno-interview
6. Projective hypno-diagnosis
7. Hypnosis and medicine
8. Theoretical consideration of hypno-interview
9. Misconception and misuse of hypnosis

(Addendum) Hypnodrama of John, Translated from Dr. J. L. Moreno's book

Especially in Chapter 2 the author discusses about the scale for depth of hypnosis, showing a new original scale of his own which is truly fresh in the idea and convenient in practice. Techniques of hypnosis induction (Chapter 3) are suggested so plain that the knacks of hypnosis induction can be scientifically practiced. The author makes it clear that induction of hypnosis is a very delicate interpersonal experience. Deepening the trance is prerequisite to complicated hypno-interview, so elaborations of procedures of Erickson, Vogt, and LeCron and Bordeaux are introduced minutely by the author himself.

Owing to his deep understanding of psychoanalysis and dynamic psychiatry, the chapters of techniques of hypno-interview and theoretical considerations of hypno-interview are of the most excellent and useful parts in this book. On the whole this is a very considerable volume not only for such workers and investigators as in clinical psychology and in dynamic psychiatry but also for beginners and students in those fields.

ABSTRACTS OF CURRENT LITERATURE

Edited by Bernard E. Gorton, M.D.

30. de Moraes Passos, A. C. O valor de hipnose no tratamento da asma brônquica. (The value of hypnosis in the treatment of bronchial asthma.) *Bol. Brasil. Soc. internac. Hipn. clin. exper.*, 1958, **1**, No. 1, 3-13.

Hypnosis is not a panacea but a valuable adjunct in the therapy of bronchial asthma. It does not exclude other forms of therapy. It can be used to give direct intra-and post-hypnotic suggestions or in conjunction with such forms of psychotherapy as hypnoanalysis, hypnosynthesis, prolonged sleep, etc. Suggestions of relaxation, of quietness, and of deep and easy breathing have been found successful in six out of seven cases. However, the effects were not permanent, and regular repetitions of the hypnotic sessions were required. Prolonged suggested sleep is best used in nonambulatory cases. In the one case discussed in the article, prolonged sleep of 19 hours per day over a period of 60 days proved extremely effective and has had lasting effects for a year. In general, hypnosis, used in a variety of ways, has not only improved asthmatic crises but has prevented their occurrence completely in some cases. (A.M.W.)

31. Lichtenstein Luz, C. S. A hipnose como auxiliar da psycoterapia. (Hypnosis as an adjunct to psychotherapy.) *Bol. Brasil Soc. internac. Hipn. clin. exper.*, 1958, **1**, No. 2, 4-19.

Correctly used, hypnosis is a valuable adjunct to psychotherapy. The use of direct suggestion is not satisfactory, because it does not take into account the psychodynamics of the situation. (A.M.W.)

32. Ikemi, Y., and others. Experimental studies on the psychosomatic disorders of the digestive system. *Proc. World Congr. Gastroent.* Washington, D. C., 1958, 169-180.

Making use of the past history of their subjects as well as of the results of psychological tests, the authors brought about various emotional reactions through hypnosis. Various groups of 20 to 38 adolescents ranging from 16 to 18 years of age were studied. A variety of possible physiologic correlates was examined, including gastric secretions, gastric motility, colonic motility, and the antibacterial activity of the blood. While physiologic reactions to induced emotions were observed, no specific direction of reaction was found to be associated with given emotions. Perhaps this is because the present classification of emotions is inadequate. "The only conclusion which can be drawn at present is that emotions, no matter what kind of emotions they may be, have definite influence upon the physiologic functions of the digestive system." Evidence was found supporting the idea that emotional hyperventilation produces psychoneurotic symptoms in the digestive system, and that the emotions play an important role in the infectious process in the digestive system. (A.M.W.)

33. Naruse, G. [A physiological study of the relationship between hypnosis and sleep.] (In Japanese.) [*Dental Science Report*], 1959, **59**, 9-34.

After reviewing the controversial data on the question of the relationship of sleep to hypnosis, the author concludes that the difficulty lies in an inadequate definition of "hypnosis." He then defines operationally three different conditions: waking hypnosis, suggested sleep, and spontaneous sleep. Physiological measures, including EEG, GSR, ECG, patellar reflex stethography, obtained in each of the above three conditions distinguished between them. From the results he concludes that waking hypnosis and suggsted sleep deserve to be called "hypnosis," but spontaneous sleep is a true state of natural-like sleep, rather than hypnosis. (A.M.W.)

34. Sinclair-Gieben, A. H. C., and Chalmers, D. Evaluation of treatment of warts by hypnosis. *Lancet*, 1959, **3**, 48.

"Fourteen cases of warts were treated by hypnosis. It was suggested to the patient that the warts on one side of the body (the worst affected) would disappear.

The other side served as a perfectly matched control. In 9 out of the 10 patients in whom deep or moderate hypnosis was achieved, the warts on the 'treated' side disappeared while those on the control side remained unchanged. This treatment was effective in *all* cases where the patient was hypnotized deeply enough to perform, on awakening, some action that had been suggested to him." (A.M.W.)

35. Fouré, J., and Chertok, L. Un cas de reflexe nauséeux incoercible traité par l'hypnothérapie. [Severe gag reflex treated by hypnotherapy.] *Rev. franç. d'Odonto-Stomat.*, 1959, **3**.

The authors, an oral surgeon and a psychiatrist, report in some detail on the successful treatment of a severe gag reflex. The authors emphasize the importance of combining suggestive techniques with an understanding of the psychodynamics of the patient. (A.M.W.)

36. Wolffenbuettel, E. A hipnose médica sob forma puramente relaxante e tranquiliza dora (psicoplégica) no tratamento do assim chamado e mal definido "reumatismo psicógeno." (Medical hypnosis used purely as a relaxant and tranquilizant (psychoplegic) in the treatment of so-called and poorly defined "psychogenic rheumatism.") *Bol. Brasil Soc. internac. Hipn. clin. exper.*, 1959, **1**, 36-43.

The author proposes that "psychogenic rheumatism" is an expression of maladaptive muscular tonus arising from emotional tension and anxiety. Hypnosis used purely to relax and tranquilize the patient without the use of suggestions is an effective agent in the treatment of "psychogenic rheumatism." It is advantageous to teach self-relaxation to the patient in such cases. (A.M.W.)

37. Lichtenstein Luz, C. S. Hipnose em ortóptica. (Hypnosis in orthoptics.) *Bol. Brasil Soc. internac. Hipn. clin. exper.*, 1959, **1**, No. 2, 1-11.

Hypnosis has been used satisfactorily as an aid in the correction of certain visual defects. Strabismus and the development of binocular vision are the main topic of the present report. In all 14 cases have been created, combining training under hypnosis with psychotherapy. In some instances hypnosis was used only as an adjunct to psychotherapy. In other cases various eye exercises were first performed under hypnosis and the ability to perform them in the waking state subsequently suggested. The author emphasizes the importance of concurrently handling all psychological and emotional problems which may be present. (A.M.W.)

38. Marcus, H. W. The role of hypnosis and suggestion in dentistry. *J. Amer. Dent. Assn.*, 1959, **59**, 1149-1154.

Hypnosis can be a valuable asset to the dentist. It should be used only when other standard procedures do not lead to desired results, or when the desired results can be facilitated by the use of hypnosis. The author lists ten dental uses of hypnosis and nine contra-indications for it. This is followed by a brief survey of general procedures to be followed in the dental office. He concludes by pointing out the importance of evaluating and properly using the psychodynamic factors involved in the dentist-patient relationship. (A.M.W.)

39. Scott, M. J. Hypnosis in dermatologic therapy. *Northw. Med.*, 1959, **58**, 701-706.

Hypnosis is not a panacea but a valuable adjunct to conventional dermatologic therapy in judiciously selected cases. Hypnosis achieves its effectiveness through the subconscious. The essential characteristic of hypnosis is increased suggestibility. Symptoms may be relieved under hypnosis by direct or indirect suggestions, by symptom substitution, by obtaining conscious awareness of the underlying conflicts, or through a combination of all three techniques. Many other techniques exist but these three are those found most useful by the writer for treating dermatologic patients. The author discusses briefly the prerequisites for the induction and utilization of hypnosis as well as the techniques. Applications to dermatology are discussed and three instances of treatment by each of the above methods are presented. The author states that he has had excellent results in treating psychosomatic pruritus vulvae and ani, nummular eczema, hyperhidrosis, and neurotic excoriations. He also lists a dozen dermatologic disorders he has successfully treated in very carefully

selected cases. Some results have also been obtained in various cases of obsessional states associated with skin conditions. The control of pain in connection with cutaneous surgery and various dermatological conditions has been quite successful. It is generally advantageous to employ the hypnotic procedure in conjunction with other methods of dermatologic therapy—not to their exclusion. (A.M.W.)

40. Krakora, B. Elektroencephalogram pri usinani, spanku a hypnose. [The electroencephalogram while falling asleep, during sleep, and in hypnosis.] *Neurol. Psychiat. Csl.*, 1953, **16**, 141-154.

Observations on 8 subjects who passed from the hypnotic state into sleep are reported. The EEG during hypnosis, while the hypnotist is talking or the subject is carrying out his instructions, does not differ from the waking record. "Within a certain time after the last suggestion the record changes into one typical of normal sleep. The phases of transition are the same as when falling asleep is spontaneous. No clinically observable changes are noted in the hypnotized subject while the EEG record is one of sleep. He remains indifferent to external stimuli, the instructions of the hypnotist are carried out without any signs of waking, voices are accurately differentiated, replies are only given to the hypnotist or other specified persons . . . After some time the subject sometimes passes from sleep to a waking state. This usually happens during the first session when hypnosis is shallow. The hypnotized subject falls asleep irrespective of the contents of the suggestions given. The nature of the suggestions does, however, have an effect on how soon sleep changes take place. After repeated sessions sleep changes appear sooner." (Quotation from English summary appended to the article.) (B.E.G.)

41. Volkov, F. N. Die Hypnose als Methode der Psychotherapie unter den Bedingungen der poliklinischen Arbeit. [Hypnosis as a psychotherapeutic method in a polyclinic.] *Aus dem med. Schrifttum der Sowjetunion u. d. volksdemokr. Länder*, 1955, **3**, No. 7, 2-12.

This is a translation of the Russian article which appeared in *Klinitseskaia Medizina*, **32**, No. 9, 35-41. The author discusses hypnosis from the standpoint of Pavlovian theory as a state of inhibition of the cerebral cortex. "Since we have used hypnosis on several thousand patients for over 20 years in a polyclinic, we have concluded that suggestion is not only an auxiliary treatment method but that it is frequently the therapeutic method of choice." Pavlov is quoted as describing hypnosis as "a normal procedure in the physiologic effort to combat a pathogenic agent." Following a discussion of sleep therapy, which is used in the Soviet Union for the treatment of trauma of the nervous system, hypertension, peptic ulcer and asthma, the author points out that "hypnotic sleep therapy" (i.e. prolonged states of hypnosis without specific verbal suggestions superadded) is preferable to chemically induced sleep. It is stated explicitly that there is no contraindication to the use of hypnosis whatsoever except the existence of a paranoid type of mental illness. Hypnotherapy can also serve to potentiate other treatment modalities. The author believes that hypnosis should be added to the therapeutic armamentarium of all clinics and hospitals and is particularly important in polyclinic practice in the management of chronic diseases in which there is frequently much psychogenic and iatrogenic overlay. The application of hypnosis in neuropsychiatric disorders is discussed; the indiscriminate use of various somatic treatment methods in the neuroses is condemned. The author then presents three simple tests of suggestibility which he employs for selecting patients for hypnosis, which he induced generally by means of direct authoritarian methods. (B.E.G.)

The American Journal of Clinical Hypnosis

Volume II, Number 4

April, 1960

Official Journal

The American Society of Clinical Hypnosis

THE AMERICAN JOURNAL OF CLINICAL HYPNOSIS is published quarterly in January, April, July, and October. The volume begins with the July number.

Subscription per year, $6; single numbers, $2. There is a rate of $5 for libraries of non-profit institutions (medical societies, hospitals, and educational institutions).

All manuscripts, books for review, subscriptions, and changes of address should be sent to the Editor at 32 West Cypress St., Phoenix, Arizona.

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The American Journal of Clinical Hypnosis is published at 224 Shady Lane, Lexington, Kentucky.

Second class mail privileges authorized at Lexington, Kentucky.

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